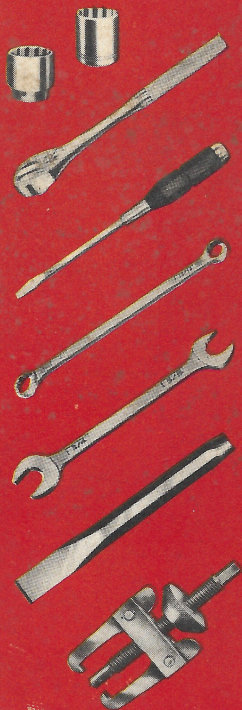
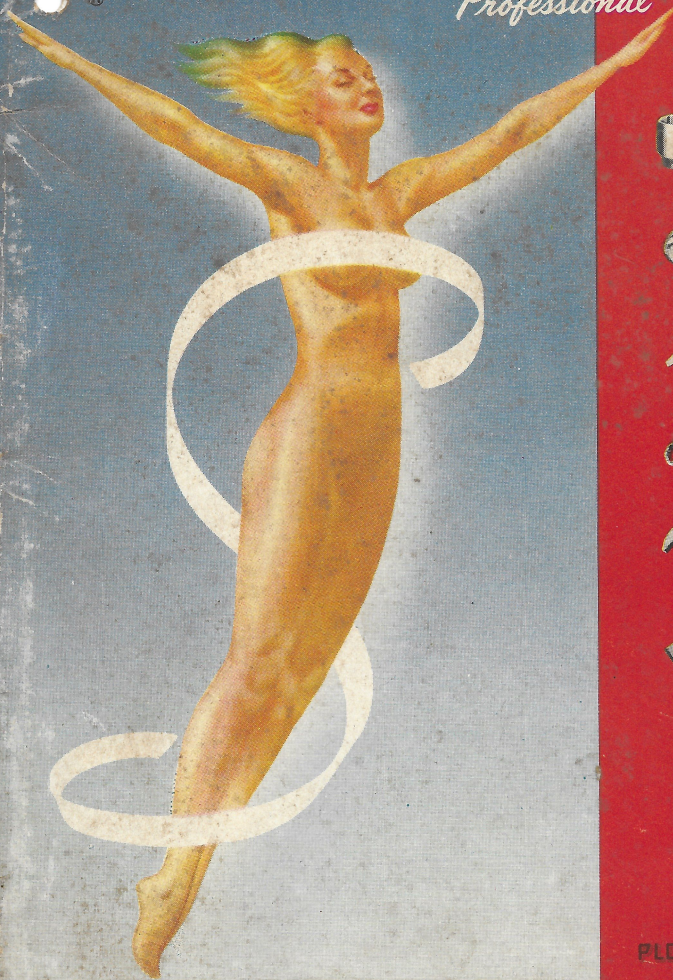


PROTO TOOLS

Professional Quality



CATALOG 4922-M

Issued by
PLUMB TOOL COMPANY
Los Angeles, Calif.

*Your
Guide*

TO FINE HAND
SERVICE TOOLS
FOR



AUTOMOBILES
TRUCKS, BUSES



AIRPLANES
TRACTORS

FARM IMPLEMENTS



MACHINES
OTHER FACTORY
EQUIPMENT
POWER PLANTS



RAILROADS
MINES
REFINERIES



OIL FIELDS
CONSTRUCTION
UTILITIES



SHIPS
AIR CONDITIONING
REFRIGERATION



PLUMBING
APPLIANCES
OFFICE EQUIPMENT



HOBBIES
HOUSEHOLDS

CATALOG NO. 4922-M

with a Complete Listing of



GUARANTEE

Proto Tools are guaranteed to perform the work for which they are designed, and to last as long as is consistent with ordinary wear. Any tool found defective in workmanship or material, and returned to the Factory with charges prepaid, will at our option be replaced, repaired or credited at current prices. Special tools not listed in our catalog or price list do not carry the same guarantee, because they have been manufactured to the original purchaser's specifications. Also, tools that have been ground or altered in any other manner from their original design are not covered by the guarantee.

SPECIAL TOOLS

In addition to the standard tools listed in this catalog, a great many types of special tools are made for manufacturers and other tool users. Inquiries are welcomed on tools of your own specifications, required to solve production or maintenance problems. To obtain more information on standard tools, special tools or any tool problem, see your nearest Proto Tool distributor or write to our Contract Department, giving your name, position, company and company address.

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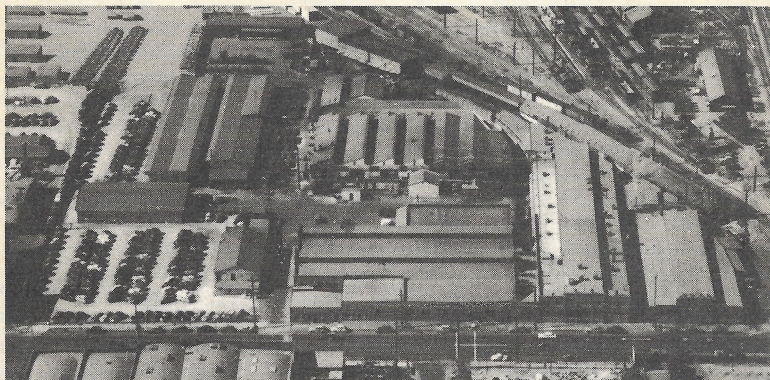
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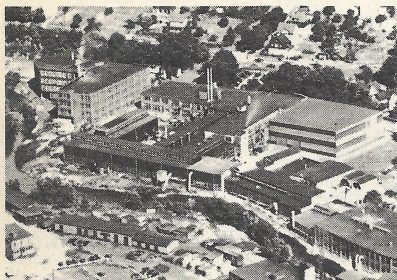
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FOUR MANUFACTURING PLANTS



Main Factory and Offices in Los Angeles, Calif.



Jamestown, N. Y., Factory and Warehouse



Schiller Park (Chicago), Ill., Factory



Milwaukie (Portland), Ore., Factory

Founded in 1907, the manufacturer of Proto Tools is the World's largest producer to-day of high-quality hand service tools.

The four factories illustrated above are modern in organization and facilities, and new buildings, new equipment and more efficient manufacturing methods are continually being added.

The company's leadership is attributable mainly to intensive research, sound designs, use of special alloy steels, better manufacturing and hard work—all directed toward improvement of quality.

It has always been and always will be the ideal of the company to make the finest of quality hand tools.

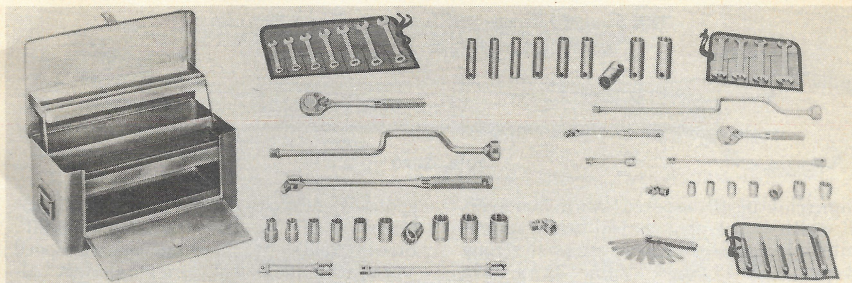
TOOLS YOU NEED — WE MAKE!

By constantly checking requirements of tool users and by pre-testing designs in the field before starting manufacture, the company maintains a very complete and practical line of tools. If you need a tool of a type the company makes that is not in

this catalog, contact your Distributor or the company's Contract Department regarding its availability.

Any ideas you may have for new tools or suggestions for improving present tools will be welcomed and appreciated.

NO. 9989C MASTER TOOL SET



An ideal set for industrial maintenance, providing needed tools for trouble-shooting and reducing time in breakdowns. Also a fine basic set for repair of cars, trucks, trac-

tors, refrigerators, etc. Gives very wide coverage for a low investment. Includes No. 9989 tool chest and the seven basic sets listed below. Weight, 37 Lbs.

No. 000A Short Feeler Gauge Set

NO.	DESCRIPTION
003	Gauge, .003" Thick
004	Gauge, .004" Thick
005	Gauge, .005" Thick
006	Gauge, .006" Thick
008	Gauge, .008" Thick
010	Gauge, .010" Thick
012	Gauge, .012" Thick
015	Gauge, .015" Thick
018	Gauge, .018" Thick
000C	Gauge Holder

No. 3 Punch and Chisel Set

41	3/8" Center Punch
47	5/16"x1 1/8" Rivet Punch
47	3/8"x3/16" Rivet Punch
50	5/16" Starting Punch
86A	1 1/2" Cold Chisel
2411	Velon Kit

No. 1200H Combination Wrench Set

1212	3/8" Openings
1214	7/16" Openings
1216	1/2" Openings
1218	9/16" Openings
1220	5/8" Openings
1222	11/16" Openings
1224	3/4" Openings
2404	Velon Kit

No. 3400G Tappet Wrench Set

3425	1/16"x1 1/2" Openings
3426	1/2"x3/16" Openings
3426	1 1/2"x3/16" Openings
3430	3/16"x3/8" Openings
2405	Velon Kit

No. 5200AA 3/8" Drive Socket Wrench Set

5212	Socket, 3/8" Op.
5214	Socket, 7/16" Op.

No. 5200AA Set—Contd.

NO.	DESCRIPTION
5216	Socket, 1/2" Op.
5218	Socket, 9/16" Op.
5220	Socket, 5/8" Op.
5222	Socket, 11/16" Op.
5224	Socket, 3/4" Op.
5249	Rev. Ratchet, 7"
5260	Extension, 3 1/2"
5262	Extension, 12"
5265	Hinge Handle, 7 3/8"
5270	Universal Joint
5280	Speed Handle, 16 1/2"

No. 5300B 1/2" Drive Deep Socket Set

5340	1/2" Opening
5341	9/16" Opening
5343	5/8" Opening
5344	1 1/16" Opening
5345	3/4" Opening
5347	15/16" Opening
5348	1" Opening

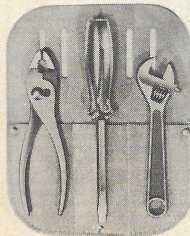
No. 5300B Set—Contd.

NO.	DESCRIPTION
5349	15/16" Opening
5351	1" Opening

No. 5400AA 1/2" Drive Socket Wrench Set

5414	Socket, 7/16" Op.
5416	Socket, 1/2" Op.
5418	Socket, 9/16" Op.
5420	Socket, 5/8" Op.
5422	Socket, 11/16" Op.
5424	Socket, 3/4" Op.
5426	Socket, 13/16" Op.
5428	Socket, 7/8" Op.
5430	Socket, 15/16" Op.
5432	Socket, 1" Op.
5449	Rev. Ratchet, 10 1/4"
5461	Extension, 5"
5463	Extension, 10"
5467	Hinge Handle, 15"
5470	Universal Joint
5480	Speed Handle, 18"

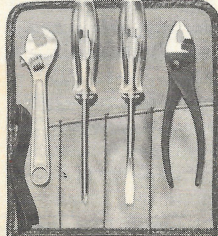
No. 9900C Household Gift Set



Has handiest tools for most home and many professional jobs. In belt-type kit. Contents:

NO.	DESCRIPTION
276	6" Slip Jt. Plier
706S	6" Adjust. Wrench
9804	Screwdriver, Plastic Hdl., 3/8" Bit
2450	Leather Kit, 7"x9"
	Weight, 1.82 Lbs.

No. 9900D Car or Household Gift Set

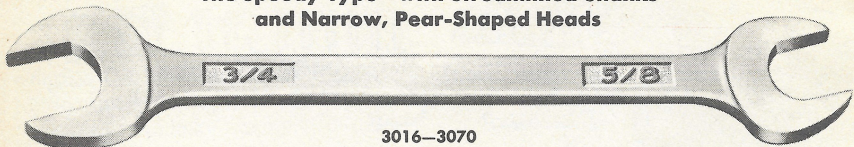


Handy set to carry in car or keep in kitchen. Contents:

NO.	DESCRIPTION
276	6" Slip Jt. Plier
706	6" Adjust. Wrench
9604	Screwdriver, Plastic Hdl., 3/8" Bit
9684	Screwdriver, Phillips No. 2 Bit
2408	Kit, 8"x13 1/4"
	Weight, 2.1 Lbs.

OPEN END WRENCHES—15° ANGLE

The Speedy Type—with Streamlined Shanks and Narrow, Pear-Shaped Heads



3016—3070

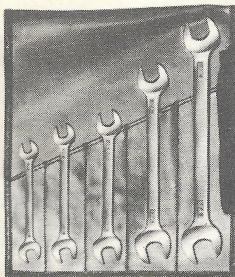
Slim, scientifically tapered jaws reduce over-all width of the pear-shaped heads to permit work in close places but are extra strong at points of greatest strain. Jaws have minimum overhang to speed seating on nut, increase strength and prevent jaw spreading. Opening bases have a radius determined for high strength. Heads have the correct thickness. Small radii where head and shank join increase useability in tight

spots. Heads project from shank at 15° angle, permitting a turning arc of only 30°. Streamlined shanks are easy on hands, speed work and enhance appearance. Perfect balance and good "feel" assure ease of handling. Great strength and toughness—giving extra life—result from use of special alloy steels, scientific grain-flow forging, and correct heat treatment. Chrome plating gives rust-proof, lustrous-appearing wrenches.

NO.	NOMINAL OPENING SIZES	AMER. STD. HEAVY & USS		AMER. STD. REG. BOLT HEADS		AMER. STD. REGULAR NUTS		AMER. STD. LIGHT & SAE		HEAD THICKNESS	OVER-ALL LENGTH	WT., LBS.
		SMALL	LARGE	SMALL	LARGE	SMALL	LARGE	SMALL	LARGE			
3016	3/16" x 1/4"	---	---	---	---	#2&3	#4	---	---	1 1/64"	4 1/2"	.04
3018	1/4" x 5/16"	---	1/8(A)	---	---	#4	#5&6	---	---	1 1/64"	4 1/2"	.05
3020	5/16" x 3/8"	1/8(A)	---	---	1/4	#5&6	#10	---	---	1 3/64"	4 7/8"	.06
3021	3/8" x 7/16"	---	---	1/4	---	#10	#12&1/4	---	1/4	1 5/32"	5 1/4"	.08
3025	7/16" x 1/2"	---	1/4(B)	---	5/16	#12&1/4	---	1/4	5/16	1 5/64"	5 5/8"	.11
3026	1/2" x 9/16"	1/4(B)	---	5/16	3/8	---	5/16	5/16	3/8	1 7/64"	6"	.15
3027	1/2" x 19/32"	1/4(B)	5/16(B)	5/16	---	---	---	5/16	---	1 7/64"	6 3/8"	.18
3030	9/16" x 5/8"	---	---	3/8	7/16	5/16	3/8	3/8	7/16	1 9/64"	6 3/4"	.21
3031	5/8" x 3/4"	---	---	7/16	1/2	3/8	7/16	7/16	1/2	2 1/64"	7 7/16"	.30
3033	19/32" x 1 1/16"	5/16(B)	3/8(B)	---	---	---	---	---	---	2 1/64"	7 5/8"	.24
3034	5/8" x 1 1/16"	---	3/8(B)	7/16	---	3/8	---	7/16	---	2 1/64"	8 1/8"	.27
3035	1 1/16" x 3/4"	3/8(B)	---	---	1/2	---	7/16	---	1/2	2 1/64"	8 9/16"	.33
3036	1 1/16" x 7/8"	3/8(B)	1/2	---	9/16	---	9/16	---	9/16	1 11/32"	9"	.35
3037	1 1/16" x 25/32"	3/8(B)	7/16(B)	---	---	---	---	---	---	1 11/32"	9 1/2"	.38
3039	3/4" x 7/8"	---	1/2	1/2	9/16	7/16	9/16	1/2	9/16	2 3/64"	10"	.46
3040	13/16" x 7/8"	---	1/2	---	9/16	1/2	9/16	---	9/16	2 3/64"	10 1/2"	.59
3041	7/8" x 1 1/16"	1/2	5/8	9/16	---	9/16	---	9/16	3/4	3 3/8"	11 1/8"	.72
3045	15/16" x 1"	9/16(C)	---	5/8	---	---	5/8	5/8	---	2 5/64"	12"	.85
3047	15/16" x 1 1/16"	9/16(C)	5/8	5/8	---	---	5/8	5/8	3/4	2 7/64"	13"	.97
3050	1 1/16" x 1 1/8"	5/8	---	---	3/4	---	3/4	3/4	---	3 7/16"	13 7/8"	1.30
3051	1 1/16" x 1 1/4"	5/8	3/4	---	---	---	---	3/4	7/8	3 1/2"	14 7/8"	1.78
3055	1 1/4" x 1 5/16"	3/4	---	---	7/8	---	7/8	7/8	---	3 3/64"	16 1/4"	2.3
3060	1 3/8" x 1 1/16"	---	7/8	---	---	---	---	1	---	3 5/64"	17 5/8"	2.7
3061	1 1/4" x 1 1/16"	3/4	7/8	---	---	---	---	7/8	1	3 9/16"	19 1/8"	3.1
3065	1 7/16" x 1 5/8"	7/8	1	---	---	---	---	1	1 1/8	5 5/8"	20 1/2"	3.5
3070	1 1/2" x 1 5/8"	---	1	1	---	1	---	---	1 1/8	4 1/64"	22"	3.8

(A) USS Only. (B) Amer. Std. Heavy Nuts & USS Only. (C) Amer. Std. Heavy Only.

OPEN END WRENCH SETS

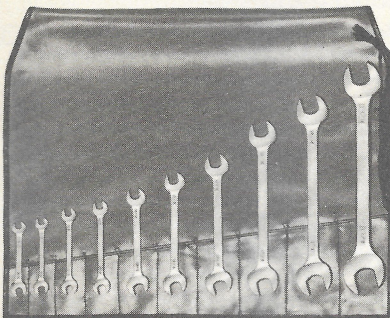


No. 3000N Set

This set is very popular because it includes five open end wrenches in the most-used range of sizes. All opening sizes are provided from $\frac{3}{8}$ " to $\frac{1}{8}$ " by $\frac{1}{16}$ " steps. It is a fine basic set to which more sizes can be added as they are needed.

Contents

NO.	OPENING SIZES	LENGTH
3021	$\frac{3}{8}" \times \frac{7}{16}"$	$5\frac{1}{4}"$
3026	$\frac{1}{2}" \times \frac{9}{16}"$	6"
3030	$\frac{9}{16}" \times \frac{5}{8}"$	$6\frac{3}{4}"$
3035	$\frac{11}{16}" \times \frac{3}{4}"$	$8\frac{9}{16}"$
3040	$\frac{13}{16}" \times \frac{7}{8}"$	$10\frac{1}{2}"$
2405	Velon Kit, $9\frac{7}{8}" \times 20\frac{3}{4}"$	
Weight, 1.63 Lbs.		



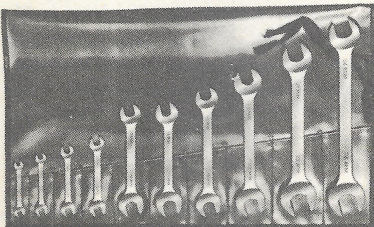
No. 3000H Set

An expanded set of ten open end wrenches for professional use. All opening sizes are provided from $\frac{1}{4}$ " to $1\frac{1}{8}$ " by $\frac{1}{16}$ " steps.

Contents

NO.	OPENING SIZES	LENGTH
3018	$\frac{1}{4}$ " x $\frac{5}{16}$ "	$4\frac{1}{2}$ "
3020	$\frac{5}{16}$ " x $\frac{3}{8}$ "	$4\frac{7}{8}$ "
3025	$\frac{7}{16}$ " x $\frac{1}{2}$ "	$5\frac{5}{8}$ "
3026	$\frac{1}{2}$ " x $\frac{9}{16}$ "	6"
3030	$\frac{9}{16}$ " x $\frac{5}{8}$ "	$6\frac{3}{4}$ "
3031	$\frac{5}{8}$ " x $\frac{3}{4}$ "	$7\frac{9}{16}$ "
3035	$\frac{11}{16}$ " x $\frac{3}{4}$ "	$8\frac{9}{16}$ "
3040	$\frac{13}{16}$ " x $\frac{7}{8}$ "	$10\frac{1}{2}$ "
3045	$\frac{15}{16}$ " x 1"	12"
3050	$1\frac{1}{16}$ " x $1\frac{1}{8}$ "	$13\frac{7}{8}$ "
2406	Velon Kit, $22\frac{1}{4}$ " x $22\frac{1}{2}$ "	
Weight, 4.6 Lbs.		

METRIC-SIZE OPEN END WRENCHES



No. 30000A Metric Wrench Set

All ten wrenches, listed at right, in No. 2406 Velon kit. Weight, 3.4 Lbs.

No. 30000R Metric Wrench Set

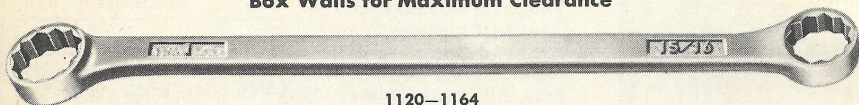
Six wrenches—30809 through 31819—in No. 2404 Velon kit. Weight, 1.31 Lbs.

Forged from fine alloy steel and properly heat treated for extra strength and toughness. Openings are accurately milled. The ten wrenches provide all openings from 6 to 24 millimeters, by 1-millimeter steps, plus a 26-millimeter opening.

NO.	NOM. OPEN. SIZES, MM.	HD. THICKNESS, MM.	LENGTH, MM.	LENGTH, INCHES	WT., LBS.
30607	6x7	4.4	88.9	$3\frac{1}{2}$	.06
30809	8x9	5.2	101.6	4	.06
31011	10x11	5.6	114.3	$4\frac{1}{2}$	.12
31213	12x13	5.9	127.0	5	.12
31415	14x15	7.5	165.1	$6\frac{1}{2}$	.19
31617	16x17	7.5	165.1	$6\frac{1}{2}$	.19
31819	18x19	8.3	203.2	8	.37
32022	20x22	9.1	241.3	$9\frac{1}{2}$	.50
32123	21x23	9.1	254.0	10	.50
32426	24x26	9.9	287.7	$11\frac{1}{4}$	.62

12-POINT BOX WRENCHES

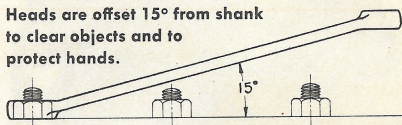
The Safety Type—with Strong, Thin Box Walls for Maximum Clearance



Thin but very strong box walls and resulting compact heads permit use in close quarters. Walls are thinner at the wrench tip than at the shank end of the box where greater strength is needed. Box openings are beveled for easy placement over a nut or bolthead. Small radii where the head and shank join give more clearance and increase the useable arc. Streamlined shanks provide comfortable grip, eliminate excess weight and allow long use without fatigue. Good balance and "feel" also make them easy to handle. These box wrenches are

forged from special alloy steels and scientifically heat treated to give the desired strength, toughness and hardness. Modern manufacturing produces uniform, high-quality wrenches with accurate openings, which speed work and reduce wear. Chrome plating gives a bright, rust-proof finish.

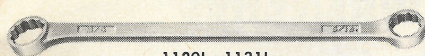
Heads are offset 15° from shank to clear objects and to protect hands.



NO.	NOMINAL OPENING SIZES	AMER. STD. HEAVY & USS		AMER. STD. REG. BOLTHEADS		AMER. STD. REGULAR NUTS		AMER. STD. LIGHT & SAE		HEAD THICKNESS	OVER-ALL LENGTH	WT., LBS.
		SMALL	LARGE	SMALL	LARGE	SMALL	LARGE	SMALL	LARGE			
1120	5/16" x 3/8"	1/8(A)	---	---	1/4	#5 & 6	#10	---	---	9/32"	4 1/4"	.04
1122	3/8" x 7/16"	---	---	1/4	---	#10	#12 & 1/4	---	1/4	5/16"	4 5/8"	.06
1125	7/16" x 1/2"	---	1/4(B)	---	5/16	#12 & 1/4	---	1/4	9/16	5/16"	5"	.08
1126	1/2" x 9/16"	1/4(B)	---	5/16	3/8	---	5/16	5/16	3/8	11/32"	5 3/8"	.10
1127	1/2" x 1 1/32"	1/4(B)	5/16(B)	5/16	---	---	---	5/16	---	11/32"	5 9/16"	.12
1130	9/16" x 5/8"	---	---	3/8	7/16	5/16	3/8	3/8	7/16	3/8"	5 3/4"	.16
1131	5/8" x 3/4"	---	---	7/16	1/2	3/8	7/16	7/16	1/2	13/32"	6 1/8"	.22
1133	1 3/32" x 1 1/16"	5/16(B)	3/8(B)	---	---	---	---	---	---	13/32"	10"	.33
1134	5/8" x 1 1/16"	---	3/8(B)	7/16	---	3/8	---	7/16	---	13/32"	10 5/8"	.34
1135	1 1/16" x 3/4"	3/8(B)	---	---	1/2	---	7/16	---	1/2	7/16"	11 1/4"	.48
1136	1 1/16" x 7/8"	3/8(B)	1/2	---	9/16	---	9/16	---	9/16	7/16"	11 7/8"	.47
1137	1 1/16" x 25/32"	3/8(B)	7/16(B)	---	---	---	---	---	---	7/16"	12 1/2"	.48
1139	3/4" x 7/8"	---	1/2	1/2	9/16	7/16	9/16	1/2	9/16	15/32"	13 1/8"	.66
1140	9/16" x 7/8"	---	1/2	---	9/16	1/2	9/16	---	9/16	15/32"	13 7/8"	.70
1141	7/8" x 1 1/16"	1/2	5/8	9/16	---	9/16	---	9/16	3/4	1/2"	14 5/8"	.82
1145	1 5/16" x 1"	9/16(C)	---	5/8	---	---	5/8	5/8	---	1/2"	15 1/2"	.84
1147	1 5/16" x 1 1/16"	9/16(C)	5/8	5/8	---	---	5/8	5/8	3/4	1/2"	16 3/8"	1.13
1150	1 1/16" x 1 1/8"	5/8	---	---	3/4	---	3/4	3/4	---	17/32"	17 1/4"	1.18
1151	1 1/16" x 1 1/4"	5/8	3/4	---	---	---	---	3/4	7/8	9/16"	18 1/4"	1.51
1155	1 1/4" x 1 5/16"	3/4	---	---	7/8	---	7/8	7/8	---	5/8"	19 1/4"	1.66
1160	1 1/4" x 1 3/8"	3/4	---	---	---	---	---	7/8	---	5/8"	20 1/4"	1.78
1161	1 1/4" x 1 7/16"	3/4	7/8	---	---	---	---	7/8	1	17/16"	21 1/4"	1.84
1162	1 7/16" x 1 1/2"	7/8	---	1	---	1	---	1	---	3/4"	22 1/4"	2.6
1163	1 7/16" x 1 5/8"	7/8	1	---	---	---	---	1	1 1/8	19/16"	23 1/4"	2.5
1164	1 5/8" x 1 11/16"	1	---	---	1 1/8	---	1 1/8	1 1/8	---	7/8"	24 1/2"	3.4

(A) USS Only. (B) Amer. Std. Heavy Nuts & USS Only. (C) Amer. Std. Heavy Only.

LONG-TYPE BOX WRENCHES



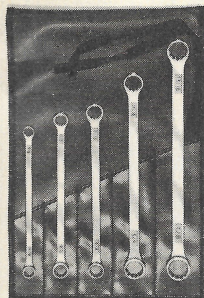
1120L-1131L

The six wrenches in this series are longer than the standard type—to provide additional leverage for hard pulls.

NO.	NOMINAL OPENING SIZES	AMER. STD. HEAVY & USS		AMER. STD. REG. BOLTHEADS		AMER. STD. REGULAR NUTS		AMER. STD. LIGHT & SAE		HEAD THICKNESS	OVER-ALL LENGTH	WT., LBS.
		SMALL	LARGE	SMALL	LARGE	SMALL	LARGE	SMALL	LARGE			
1120L	$\frac{5}{16}$ " x $\frac{3}{8}$ "	$\frac{1}{8}$ (A)	---	---	$\frac{1}{4}$	#5 & 6	#10	---	---	$\frac{9}{32}$ "	$7\frac{3}{8}$ "	.06
1122L	$\frac{3}{8}$ " x $\frac{7}{16}$ "	---	---	$\frac{1}{4}$	---	#10	#12 & $\frac{1}{4}$	---	$\frac{1}{4}$	$\frac{5}{16}$ "	$7\frac{5}{8}$ "	.08
1125L	$\frac{7}{16}$ " x $\frac{1}{2}$ "	---	$\frac{1}{4}$ (B)	---	$\frac{5}{16}$	#12 & $\frac{1}{4}$	---	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{5}{16}$ "	$7\frac{7}{8}$ "	.11
1126L	$\frac{1}{2}$ " x $\frac{9}{16}$ "	$\frac{1}{4}$ (B)	---	---	$\frac{3}{8}$	---	---	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{11}{32}$ "	$8\frac{3}{8}$ "	.13
1130L	$\frac{9}{16}$ " x $\frac{5}{8}$ "	---	---	---	$\frac{7}{16}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{3}{8}$	$\frac{3}{8}$ "	$8\frac{7}{8}$ "	.25
1131L	$\frac{5}{8}$ " x $\frac{3}{4}$ "	---	---	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{13}{32}$ "	$9\frac{1}{16}$ "	.30

(A) USS Only. (B) Amer. Std. Heavy Nuts & USS Only.

BOX WRENCH SETS



No. 1100K Set

A fine basic set of five double-end box wrenches in the most-used range to which you can add more sizes as they are needed. All opening sizes are provided from $\frac{3}{8}$ " to $\frac{7}{8}$ " by $\frac{1}{16}$ " steps.

Contents

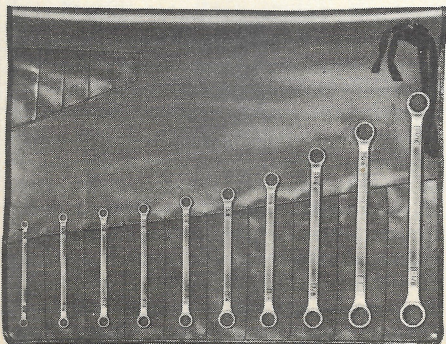
NO.	OPENING SIZES	LENGTH
1122L	$\frac{3}{8}'' \times \frac{7}{16}''$	$7\frac{5}{8}''$
1126L	$\frac{1}{2}'' \times \frac{9}{16}''$	$8\frac{3}{8}''$
1130L	$\frac{9}{16}'' \times \frac{5}{8}''$	$8\frac{7}{8}''$
1135	$\frac{11}{16}'' \times \frac{3}{4}''$	$11\frac{1}{4}''$
1140	$\frac{13}{16}'' \times \frac{7}{8}''$	$13\frac{1}{8}''$
2405	Velon Kit, $9\frac{7}{8}'' \times 20\frac{3}{4}''$	
Weight, 1.91 Lbs.		

No. 1100M Set

This master set of ten double-end box wrenches for professional use will take care of almost all common size nuts and bolts. It includes every nominal opening size from $\frac{3}{16}$ " to $1\frac{1}{8}$ " by $\frac{1}{16}$ " steps.

Contents

NO.	OPENING SIZES	LENGTH
1120L	$\frac{5}{16}$ " x $\frac{3}{8}$ "	$7\frac{3}{8}$ "
1122L	$\frac{3}{8}$ " x $\frac{7}{16}$ "	$7\frac{5}{8}$ "
1125L	$\frac{7}{16}$ " x $\frac{1}{2}$ "	$7\frac{7}{8}$ "
1126L	$\frac{1}{2}$ " x $\frac{9}{16}$ "	$8\frac{3}{8}$ "
1130L	$\frac{9}{16}$ " x $\frac{5}{8}$ "	$8\frac{7}{8}$ "
1131L	$\frac{5}{8}$ " x $\frac{3}{4}$ "	$9\frac{1}{16}$ "
1135	$\frac{11}{16}$ " x $\frac{3}{4}$ "	$11\frac{1}{4}$ "
1140	$\frac{13}{16}$ " x $\frac{7}{8}$ "	$13\frac{1}{8}$ "
1145	$\frac{15}{16}$ " x 1"	$15\frac{1}{2}$ "
1150	$1\frac{1}{16}$ " x $1\frac{1}{8}$ "	$17\frac{1}{4}$ "
2413	Velon Kit, $25\frac{1}{4}$ " x $27\frac{1}{4}$ "	
Weight, 5.0 Lbs.		



COMBINATION 12-POINT BOX AND OPEN END WRENCHES

Introduced in America by Proto
The Type for BOTH Speed and Safety



1208-1252

These very popular wrenches—with the same opening size on each end—have all the features of both open end and box wrenches, described on preceding pages. Use the safe box end for breaking loose a

nut, turn the wrench end for end, and then use the speedy open end for running off the nut. Just reverse the procedure for running on and cinching a nut. Nine long-type wrenches are now available.

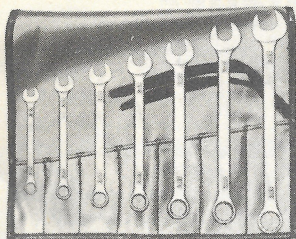
NO.	NOMINAL SIZE OF OPENINGS	AMER. STD. HEAVY & USS	AMER. STD. REGULAR BOLTHEADS	AMER. STD. REGULAR NUTS	AMER. STD. LIGHT & SAE	HEAD THICKNESS		OVER-ALL LENGTH	WT. LBS.
						BOX END	OPEN END		
†1208	¼"	---	---	#4	---	7/32"	3/16"	3"	.03
1210	5/16"	1/8(A)	---	#5 & 6	---	1/4"	3/16"	3 3/4"	.05
1212	3/8"	---	1/4	#10	---	9/32"	7/32"	4 1/2"	.07
1214	7/16"	---	---	#12 & 1/4	1/4	5/16"	1/4"	5 1/4"	.10
1216	1/2"	1/4(B)	5/16	---	3/16	5/16"	1/4"	6"	.14
1218	9/16"	---	3/8	5/16	3/8	11/32"	1/4"	6 3/4"	.20
1220	5/8"	---	1/2	3/8	1/2	3/8"	5/32"	7 1/2"	.26
1222	11/16"	3/8(B)	---	---	---	13/32"	5/16"	8 1/4"	.32
1224	3/4"	---	1/2	7/16	1/2	7/16"	11/32"	9 1/4"	.41
1226	13/16"	---	---	1/2	---	15/32"	11/32"	10 1/4"	.50
1228	7/8"	1/2	9/16	9/16	9/16	15/32"	11/32"	11 1/4"	.59
1230	15/16"	9/16(C)	5/8	---	5/8	17/32"	3/8"	12 3/8"	.62
1232	1"	---	---	5/8	---	17/32"	13/32"	13 3/8"	.86
1234	1 1/16"	5/8	---	---	3/4	17/32"	13/32"	14 3/8"	1.03
1236	1 1/8"	---	3/4	3/4	---	17/32"	7/16"	15 3/4"	1.23
1240	1 1/4"	3/4	---	---	7/8	5/8"	1/2"	17"	1.70
1242	1 5/16"	---	7/8	7/8	---	21/32"	17/32"	18 1/8"	1.95
1244	1 3/8"	---	---	---	---	11/16"	9/16"	19 3/8"	2.2
1246	1 7/16"	7/8	---	---	1	3/4"	9/16"	20 5/8"	2.5
1248	1 1/2"	---	1	1	---	13/16"	5/8"	21 3/4"	2.9
1252	1 5/8"	1	---	---	1 1/8	7/8"	41/64"	23"	3.2

LONG-TYPE (For Providing Additional Leverage on Hard Pulls)

†1208L	¼"	---	---	#4	---	7/32"	3/16"	4 7/8"	.05
1210L	5/16"	1/8(A)	---	#5 & 6	---	1/4"	13/64"	5 3/4"	.08
1212L	3/8"	---	1/4	#10	---	9/32"	7/32"	6 5/8"	.13
1214L	7/16"	---	---	#12 & 1/4	1/4	5/16"	15/64"	7 1/2"	.19
1216L	1/2"	1/4(B)	5/16	---	3/16	5/16"	1/4"	8 1/4"	.23
1218L	9/16"	---	3/8	5/16	3/8	11/32"	17/64"	9 1/8"	.28
1220L	5/8"	---	1/2	3/8	1/2	3/8"	19/64"	10"	.32
1222L	11/16"	3/8(B)	---	---	---	13/32"	21/64"	10 7/8"	.39
1224L	3/4"	---	1/2	7/16	1/2	7/16"	11/32"	11 3/4"	.48

†6-Point Box. (A) USS Only. (B) Amer. Std. Heavy Nuts & USS Only. (C) Amer. Std. Heavy Only.

COMBINATION WRENCH SETS



No. 1200H Set

A very popular basic set of seven combination box and open end wrenches, including the most useful openings. Sizes range from $\frac{3}{8}$ " to $\frac{3}{4}$ " by $\frac{1}{16}$ " steps.

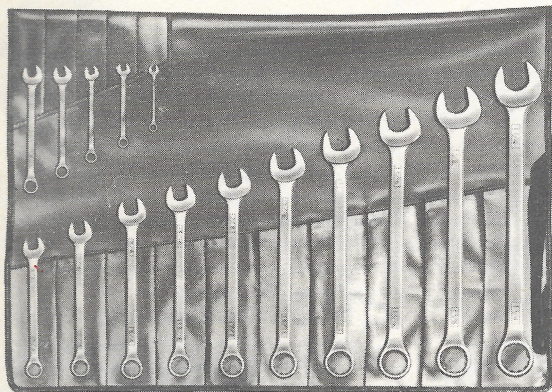
Contents

NO.	SIZE OF OPENINGS	LENGTH
1212	$\frac{3}{8}$ "	$4\frac{1}{2}$ "
1214	$\frac{7}{16}$ "	$5\frac{1}{4}$ "
1216	$\frac{1}{2}$ "	6"
1218	$\frac{9}{16}$ "	$6\frac{3}{4}$ "
1220	$\frac{5}{8}$ "	$7\frac{1}{2}$ "
1222	$\frac{11}{16}$ "	$8\frac{1}{4}$ "
1224	$\frac{3}{4}$ "	$9\frac{1}{4}$ "
2404	Velon Kit, $12\frac{1}{2}$ "x15"	
Weight, 1.76 Lbs.		

No. 1200F Set

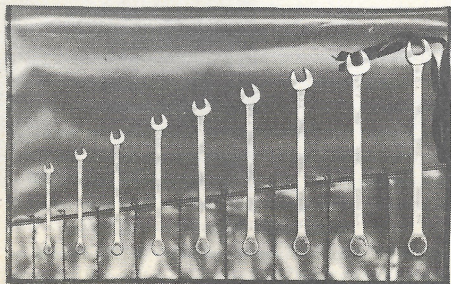
A master set of fifteen combination box and open end wrenches that will handle close to

100% of all jobs in most types of industry. Includes all available opening sizes from $\frac{5}{16}$ " to $1\frac{1}{4}$ ".



Contents

NO.	SIZE OF OPENINGS	LENGTH
1210	$\frac{5}{16}$ "	$3\frac{3}{4}$ "
1212	$\frac{3}{8}$ "	$4\frac{1}{2}$ "
1214	$\frac{7}{16}$ "	$5\frac{1}{4}$ "
1216	$\frac{1}{2}$ "	6"
1218	$\frac{9}{16}$ "	$6\frac{3}{4}$ "
1220	$\frac{5}{8}$ "	$7\frac{1}{2}$ "
1222	$1\frac{1}{16}$ "	$8\frac{1}{4}$ "
1224	$\frac{3}{4}$ "	$9\frac{1}{4}$ "
1226	$1\frac{1}{8}$ "	$10\frac{1}{4}$ "
1228	$\frac{7}{8}$ "	$11\frac{1}{4}$ "
1230	$1\frac{5}{16}$ "	$12\frac{3}{8}$ "
1232	1"	$13\frac{3}{8}$ "
1234	$1\frac{1}{16}$ "	$14\frac{3}{8}$ "
1236	$1\frac{1}{8}$ "	$15\frac{3}{8}$ "
1240	$1\frac{1}{4}$ "	17"
2413	Velon Kit, $25\frac{1}{4}$ "x $27\frac{1}{4}$ "	
Weight, 9.0 Lbs.		



No. 1200L Set

A very useful set of the long-type, extra-leverage wrenches. Includes all nine available sizes, from $\frac{1}{4}$ " to $\frac{3}{4}$ ".

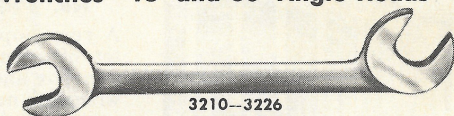
Contents

NO.	SIZE OF OPENINGS	LENGTH
1208L	$\frac{1}{4}$ "	47"
1210L	$\frac{5}{16}$ "	53 $\frac{1}{2}$ "
1212L	$\frac{3}{8}$ "	65 $\frac{1}{2}$ "
1214L	$\frac{7}{16}$ "	77 $\frac{1}{2}$ "
1216L	$\frac{1}{2}$ "	84 $\frac{1}{2}$ "
1218L	$\frac{9}{16}$ "	91 $\frac{1}{2}$ "
1220L	$\frac{5}{8}$ "	107"
1222L	$\frac{11}{16}$ "	107 $\frac{1}{2}$ "
1224L	$\frac{3}{4}$ "	113 $\frac{1}{4}$ "
2406	Velon Kit, 22 $\frac{1}{4}$ "x22 $\frac{1}{2}$ "	
Weight, 2.8 Lbs.		

MIDGET OPEN END WRENCHES AND TAPPET WRENCHES

Midget Open End Obstruction Wrenches—15° and 60°-Angle Heads

NO.	NOMINAL OPENING SIZES		HEAD THICK- NESS	LENGTH	WT., LBS.
	15° END	60° END			
3210	13/64"	15/64"	3/32"	3"	.02
3211	15/64"	17/64"	3/32"	3"	.02
3215	7/32"	1/4"	3/32"	3"	.02
3216	1/4"	7/32"	3/32"	3"	.02
3220	9/32"	5/16"	5/32"	3 1/2"	.03
3221	5/16"	9/32"	5/32"	3 1/2"	.03
3225	11/32"	3/8"	5/32"	3 3/4"	.05
3226	3/8"	11/32"	5/32"	3 3/4"	.05

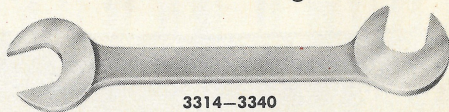


3210—3226

The two openings on each wrench are duplicated on another wrench but at different head angles. Each pair, therefore, provides two opening sizes in both 15° and 60° angles. They're used on carburetors, timers, generators, radios and other electrical equipment.

Midget Open End Electrical Wrenches—15° and 80°-Angle Heads

NO.	NOMINAL OPENING SIZE BOTH ENDS	HEAD THICK- NESS	LENGTH	WT., LBS.
3314	7/32"	3/32"	3 1/4"	.02
3315	15/64"	3/32"	3 1/4"	.02
3316	1/4"	3/32"	3 1/4"	.03
3318	9/32"	1/8"	3 1/2"	.04
3320	5/16"	1/8"	3 1/2"	.03
3322	11/32"	1/8"	4"	.04
3324	3/8"	1/8"	4"	.04
3328	7/16"	5/32"	4 3/4"	.10
3332	1/2"	5/32"	4 3/4"	.06
3336	9/16"	3/16"	5 3/4"	.11
3340	5/8"	3/16"	5 3/4"	.12



3314—3340

Both openings on each wrench are the same size. The 15° and 80°-angle heads are needed for delicate adjustments on timers, generators, radios, etc. Nos. 3336 and 3340 are for tractor and industrial use. All sizes have narrow shanks and very small fillet radii to increase their usefulness.

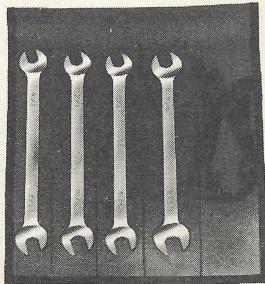
Tappet Open End Wrenches—15°-Angle Heads

NO.	NOMINAL OPENING SIZES	HEAD THICKNESS		LGTH.	WT., LBS.
		SMALL	LARGE		
3425	7/16" x 1/2"	.195"	.195"	10"	.20
3426	1/2" x 9/16"	.160"	.183"	10"	.18
3430	9/16" x 5/8"	.192"	.200"	10"	.20
3435	11/16" x 3/4"	.210"	.210"	10"	.28
3440	13/16" x 7/8"	.210"	.210"	10"	.36

No. 3400G Tappet Wrench Set Contents

NO.	QUANTITY	OPENING SIZES
3425	1	7/16" x 1/2"
3426	2	1/2" x 9/16"
3430	1	9/16" x 5/8"
2405	Velon Kit, 9 7/8" x 20 3/4"	
Weight, 1.03 Lbs.		

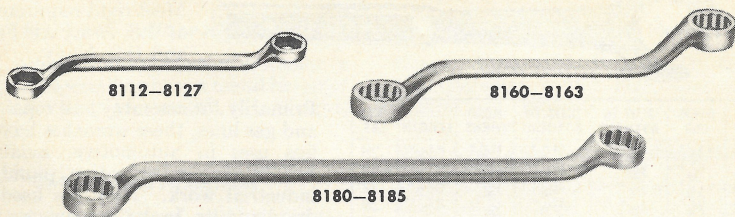
Have best length for general use, 10", which provides good leverage, keeps hands away from hot manifolds, and still permits use in close quarters. Heads give good service without spreading. Wrench openings cover tappets, screws or lock nuts without excessive overhang, making them easier and faster to use.



3400G

Note: For STANDARD Nut and Bolt Sizes, Corresponding to NOMINAL Wrench Openings, See Chart Opposite Page 64.

OFFSET BOX WRENCHES

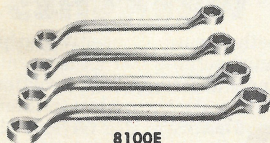


Designed to reach nuts and boltheads in counterbored places, casting depressions and other restricted spots where usual

wrenches can't be used. Heads are offset 45°, providing needed height for many jobs. Thin box walls allow maximum clearance.

Forged from special alloy steel and properly heat treated for extra strength and toughness.

No. 8100E Midget Offset Box Wrench Set



In card-board box.

Contents

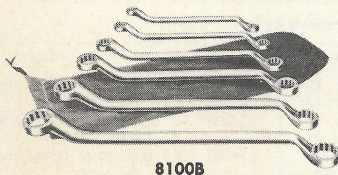
NO.	OPENINGS
8112	$\frac{3}{16}$ " x $1\frac{13}{64}$ "
8117	$\frac{1}{8}$ " x $1\frac{15}{64}$ "
8122	$\frac{1}{4}$ " x $\frac{9}{32}$ "
8127	$\frac{5}{16}$ " x $1\frac{1}{32}$ "
Weight, .14 Lb.	

MIDGET TYPE—6-POINT

NO.	NOMINAL OPENING SIZES	HEAD THICKNESS	LENGTH	WT., LBS.
8112	$\frac{3}{16}$ " x $1\frac{13}{64}$ "	$\frac{9}{64}$ "	$2\frac{13}{16}$ "	.03
8117	$\frac{1}{8}$ " x $1\frac{15}{64}$ "	$\frac{5}{64}$ "	$3\frac{3}{32}$ "	.03
8122	$\frac{1}{4}$ " x $\frac{9}{32}$ "	$\frac{11}{64}$ "	$3\frac{3}{8}$ "	.04
8127	$\frac{5}{16}$ " x $1\frac{1}{32}$ "	$\frac{3}{16}$ "	$3\frac{3}{4}$ "	.04

No. 8100B Long Offset Box Wrench Set

Covers all popular opening sizes from $\frac{3}{8}$ " to 1". A real time and work saver. In free cloth bag.



Contents

NO.	OPENINGS
8180	$\frac{3}{8}$ " x $\frac{7}{16}$ "
8181	$\frac{1}{2}$ " x $\frac{9}{16}$ "
8182	$\frac{5}{8}$ " x $1\frac{1}{16}$ "
8183	$\frac{3}{4}$ " x $2\frac{25}{32}$ "
8184	$1\frac{1}{8}$ " x $\frac{7}{8}$ "
8185	$1\frac{5}{16}$ " x 1"
Weight, 3.5 Lbs.	

SHORT TYPE—12-POINT

NO.	NOMINAL OPENING SIZES	HEAD THICKNESS	LENGTH	WT., LBS.
8160	$\frac{3}{8}$ " x $\frac{7}{16}$ "	$\frac{1}{4}$ "	5"	.09
8161	$\frac{1}{2}$ " x $\frac{9}{16}$ "	$\frac{5}{16}$ "	$5\frac{1}{2}$ "	.13
8162	$\frac{5}{8}$ " x $1\frac{1}{16}$ "	$\frac{3}{8}$ "	6"	.22
8163	$\frac{3}{4}$ " x $1\frac{1}{8}$ "	$\frac{7}{16}$ "	$6\frac{1}{2}$ "	.28

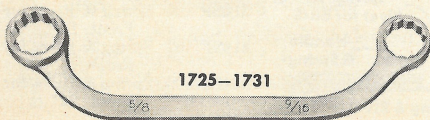
LONG TYPE—12-POINT

NO.	NOMINAL OPENING SIZES	HEAD THICKNESS	LENGTH	WT., LBS.
8180	$\frac{3}{8}$ " x $\frac{7}{16}$ "	$\frac{1}{4}$ "	$7\frac{3}{4}$ "	.19
8181	$\frac{1}{2}$ " x $\frac{9}{16}$ "	$\frac{5}{16}$ "	9"	.25
8182	$\frac{5}{8}$ " x $1\frac{1}{16}$ "	$\frac{3}{8}$ "	$10\frac{1}{4}$ "	.38
8183	$\frac{3}{4}$ " x $2\frac{25}{32}$ "	$\frac{7}{16}$ "	$11\frac{1}{2}$ "	.47
8184	$1\frac{1}{8}$ " x $\frac{7}{8}$ "	$\frac{1}{2}$ "	$12\frac{3}{4}$ "	.64
8185	$1\frac{5}{16}$ " x 1"	$\frac{9}{16}$ "	14"	.88

OBSTRUCTION 12-PT. BOX WRENCHES

For turning nuts where obstructions prevent easy access with straight wrenches, and

particularly useful on many starters. Clearance at middle is 1".



NO.	NOMINAL OPENING SIZES	HEAD THICKNESS	LENGTH	WT., LBS.
1725	$\frac{7}{16}$ " x $1\frac{1}{2}$ "	$\frac{5}{16}$ "	$5\frac{1}{16}$ "	.13
1730	$\frac{3}{4}$ " x $\frac{9}{8}$ "	$\frac{3}{8}$ "	$6\frac{25}{32}$ "	.21
1731	$\frac{5}{8}$ " x $\frac{3}{4}$ "	$1\frac{1}{32}$ "	$7\frac{5}{8}$ "	.30

FLARE NUT WRENCHES

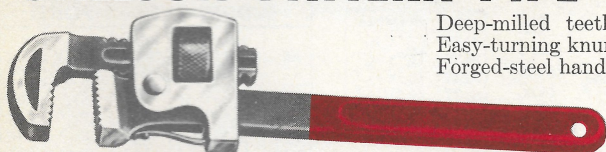


Meet rigid requirements of U.S. Army Air Forces and U.S. Navy.

NO.	OPEN-ING	SLOT IN BOXHEAD	DIAM. OF BOXHEAD	HEAD THKNS.	LENGTH	WT., LBS.
3712	3/8"	7/32"	13/16"	11/32"	6 1/2"	.28
3714	7/16"	9/32"	13/16"	11/32"	6 1/2"	.22
3716	7/8"	7/8"	31/32"	7/16"	6 7/8"	.27
3718	9/16"	1/16"	31/32"	7/16"	6 7/8"	.28
3720	5/8"	15/32"	1 1/8"	17/32"	7 1/8"	.36
3724	3/4"	9/16"	1 1/8"	19/32"	7 7/8"	.40
3728	7/8"	1 1/16"	1 1/8"	21/32"	7 3/4"	.48
3730	15/16"	25/32"	1 1/8"	21/32"	7 3/4"	.53
3732	1"	3/4"	1 1/8"	3/4"	8 1/8"	.58
3734	1 1/16"	29/32"	1 1/8"	3/4"	8 1/8"	.56
3736	1 1/8"	27/32"	1 3/4"	7/8"	8 1/16"	.67

Primarily for assembly and repair of fluid and gas lines, these wrenches have countless uses in automotive, aviation, air conditioning, refrigeration, plumbing and industrial work. They are used on hydraulic units, brake pressure and service station equipment, compressors, instruments, etc. A modified 12-point design saves chewing of soft metal nuts and fittings. Nine gripping points and deep walls prevent slippage.

STILLSON-PATTERN PIPE WRENCHES



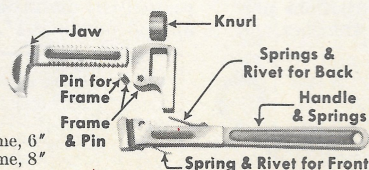
Deep-milled teeth insure a positive grip. Easy-turning knurl permits fast adjustment. Forged-steel handle and rugged construction make them ideal for hard use. Strength far exceeds Government specifications in every size.

NO.	LENGTH	MAX. OPENING	WT., LBS.
806	6"	1 1/2"	.31
808	8"	3/4"	.64
810	10"	1"	1.36

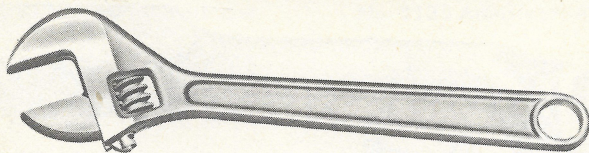
NO.	LENGTH	MAX. OPENING	WT., LBS.
814	14"	1 1/2"	2.8
818	18"	2"	4.0
824	24"	2 1/2"	7.2

Spare Parts for Pipe Wrenches

NO.	NET PRICE	DESCRIPTION	NO.	NET PRICE	DESCRIPTION	NO.	NET PRICE	DESCRIPTION
806H	.55	Handle & Spring, 6"	810P	.02	Pin for Frame, 10"	810SB	.13	Springs & Rivet for Back, 10"
808H	.63	Handle & Spring, 8"	814P	.04	Pin for Frame, 14"	814SB	.15	Springs & Rivet for Back, 14"
810H	.87	Handle & Springs, 10"	818P	.04	Pin for Frame, 18"	818SB	.15	Springs & Rivet for Back, 18"
814H	1.20	Handle & Springs, 14"	824P	.04	Pin for Frame, 24"	824SB	.16	Springs & Rivet for Back, 24"
818H	1.77	Handle & Springs, 18"	806PF	.25	Frame & Pin, 6"	806SF	.07	Spring & Rivet for Front, 6"
824H	2.81	Handle & Springs, 24"	808PF	.30	Frame & Pin, 8"	808SF	.07	Spring & Rivet for Front, 8"
806J	.35	Jaw, 6"	810PF	.38	Frame & Pin, 10"	810SF	.07	Spring & Rivet for Front, 10"
808J	.38	Jaw, 8"	814PF	.44	Frame & Pin, 14"	814SF	.09	Spring & Rivet for Front, 14"
810J	.60	Jaw, 10"	818PF	.52	Frame & Pin, 18"	818SF	.09	Spring & Rivet for Front, 18"
814J	.82	Jaw, 14"	824PF	.95	Frame & Pin, 24"	824SF	.09	Spring & Rivet for Front, 24"
818J	1.17	Jaw, 18"						
824J	1.91	Jaw, 24"						
806K	.08	Knurl, 6"						
808K	.08	Knurl, 8"						
810K	.11	Knurl, 10"						
814K	.16	Knurl, 14"						
818K	.19	Knurl, 18"						
824K	.30	Knurl, 24"						
806P	.02	Pin for Frame, 6"						
808P	.02	Pin for Frame, 8"						



ADJUSTABLE WRENCHES — 22½° ANGLE



NO.	LENGTH	MAX. OPNG.	FINISH	WT., LBS.
704	4"	1½"	Full	.08
704S	4"	1½"	Semi	.08
706	6"	3/4"	Full	.25
706S	6"	3/4"	Semi	.25
708	8"	15/16"	Full	.53
708S	8"	15/16"	Semi	.53
710	10"	1 7/8"	Full	.85
710S	10"	1 7/8"	Semi	.85
712	12"	1 5/8"	Full	1.61
712S	12"	1 5/8"	Semi	1.61
716S	16"	1 7/8"	Semi	3.6
720S	20"	2 1/2"	Semi	6.0

Forged from fine alloy steel, these wrenches are strong—though thin and light to permit faster work.

The five full-finish wrenches are highly polished and then chrome plated to prevent rust and enhance appearance. The seven semi-finish wrenches have polished heads.

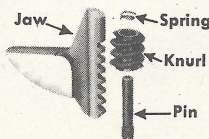
Absence of a corner lip on the movable jaw (in most sizes) allows a square nut to fit flat against the inside jaw surface, resulting in greater strength, better adaptability to different size nuts, and elimination of "knuckle busting" due to slippage.

Two cost savers are the 16" size, which does the work of usual 15" and 18" wrenches, and the 20" size, which replaces usual 18" and 24" wrenches.

Adjustable Wrench Spare Parts

NO.	NET PRICE	DESCRIPTION	NO.	NET PRICE	DESCRIPTION	NO.	NET PRICE	DESCRIPTION
704J	.27	Jaw, 4", Polished	720J	1.09	Jaw, 20", Polished	712K	.25	Knurl, 12", Polished
704JP	.33	Jaw, 4", Plated	704K	.11	Knurl, 4", Polished	712KP	.27	Knurl, 12", Plated
706J	.27	Jaw, 6", Polished	704KP	.13	Knurl, 4", Plated	716K	.40	Knurl, 16", Polished
706JP	.33	Jaw, 6", Plated	706K	.11	Knurl, 6", Polished	720K	.58	Knurl, 20", Polished
708J	.33	Jaw, 8", Polished	706KP	.13	Knurl, 6", Plated	704N	.04	Pin, 4", Polished
708JP	.42	Jaw, 8", Plated	708K	.13	Knurl, 8", Polished	706N	.04	Pin, 6", Polished
710J	.44	Jaw, 10", Polished	708KP	.14	Knurl, 8", Plated	708N	.04	Pin, 8", Polished
710JP	.55	Jaw, 10", Plated	710K	.14	Knurl, 10", Polished	710N	.04	Pin, 10", Polished
712J	.67	Jaw, 12", Polished	710KP	.16	Knurl, 10", Plated	712N	.11	Pin, 12", Polished
712JP	.80	Jaw, 12", Plated				716N	.13	Pin, 16", Polished
716J	.83	Jaw, 16", Polished				720N	.16	Pin, 20", Polished
						704R	.04	Spring, 4"
						706R	.04	Spring, 6"
						708R	.04	Spring, 8"
						710R	.04	Spring, 10"
						712R	.04	Spring, 12"
						716R	.04	Spring, 16"
						720R	.04	Spring, 20"

NOTE: Polished jaws and knurls match semi-finish and full-polished wrenches. Pins and springs match all semi-finish, full-polished and plated wrenches.

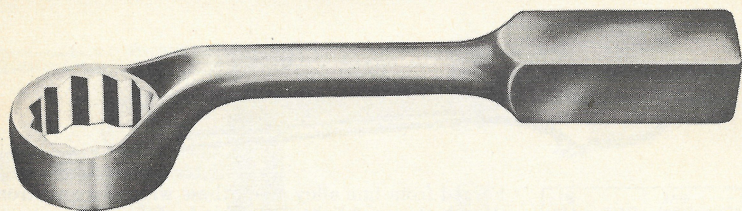


No. 700A Adjustable Wrench Spare Parts Kit

NO.	QUAN.	NO.	QUAN.	Contents	NO.	QUAN.	NO.	QUAN.
NO.	QUAN.	NO.	QUAN.		NO.	QUAN.	NO.	QUAN.
704J	2	712J	1	708K 2 708KP 2 710K 1 710KP 1 712K 1 712KP 1	716K	1	720N	1
704JP	2	712JP	1		720K	1	704R	3
706J	3	716J	1		704N	3	706R	4
706JP	3	720J	1		706N	4	708R	4
708J	3	704K	1		708N	5	710R	2
708JP	3	704KP	1		710N	2	712R	2
710J	1	706K	1		712N	1	716R	2
710JP	1	706KP	1		716N	1	720R	2
Total of 72 Parts. Weight, 4.4 Lbs. Net Price—\$14.17.								



HEAVY-DUTY INDUSTRIAL WRENCHES



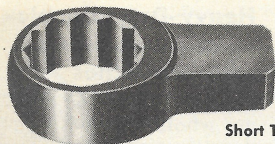
Striking Wrenches — 12-Point Box Type

An Original Development by Proto

Striking wrenches have a square striking shank for use in restricted quarters with a sledge or hammer. They are offset to allow maximum clearance. These wrenches are necessary for tightening and loosening large bolts and nuts. Like all of the heavy-duty Proto industrial wrenches, they are noted for their great strength, being FORGED from fine alloy steels. Although strong enough for extra heavy duty, they are streamlined to reduce unnecessary weight.

NO.	NOMINAL OPENING SIZE	AMER. STD. HEAVY & USS	AMER. STD. REGULAR	AMER. STD. LIGHT & SAE	HEAD THICKNESS	OVERALL LENGTH	WT., LBS.
2617SW	1 $\frac{1}{16}$ "	$\frac{5}{8}$ "	-----	$\frac{3}{4}$ "	$\frac{5}{8}$ "	8 $\frac{1}{2}$ "	2.6
2618SW	1 $\frac{1}{8}$ "	-----	$\frac{3}{4}$ "	-----	$\frac{3}{4}$ "	8 $\frac{1}{2}$ "	2.3
2620SW	1 $\frac{1}{4}$ "	$\frac{3}{4}$ "	-----	$\frac{7}{8}$ "	$\frac{3}{4}$ "	10 $\frac{3}{4}$ "	2.1
2621SW	1 $\frac{5}{16}$ "	-----	$\frac{7}{8}$ "	-----	1 $\frac{3}{16}$ "	10 $\frac{3}{4}$ "	2.7
2623SW	1 $\frac{7}{16}$ "	$\frac{7}{8}$ "	-----	1"	1"	12"	3.8
2624SW	1 $\frac{1}{2}$ "	-----	1"	-----	1"	12"	3.9
2626SW	1 $\frac{5}{8}$ "	1"	-----	1 $\frac{1}{8}$ "	1"	12 $\frac{1}{4}$ "	3.9
2627SW	1 $\frac{11}{16}$ "	-----	1 $\frac{1}{8}$ "	-----	1"	12 $\frac{1}{4}$ "	3.8
2629SW	1 $\frac{13}{16}$ "	1 $\frac{1}{8}$ "	-----	1 $\frac{1}{4}$ "	1 $\frac{1}{16}$ "	13 $\frac{1}{16}$ "	5.9
2630SW	1 $\frac{7}{8}$ "	-----	1 $\frac{1}{4}$ "	-----	1 $\frac{1}{8}$ "	13 $\frac{1}{16}$ "	5.6
2632SW	2"	1 $\frac{1}{4}$ "	-----	1 $\frac{3}{8}$ "	1 $\frac{1}{8}$ "	13 $\frac{1}{16}$ "	5.6
2635SW	2 $\frac{3}{16}$ "	1 $\frac{3}{8}$ "	-----	1 $\frac{1}{2}$ "	1 $\frac{1}{4}$ "	13 $\frac{7}{8}$ "	7.3
2638SW	2 $\frac{3}{8}$ "	1 $\frac{1}{2}$ "	-----	-----	1 $\frac{3}{8}$ "	13 $\frac{7}{8}$ "	8.5
2641SW	2 $\frac{9}{16}$ "	1 $\frac{5}{8}$ "	-----	-----	1 $\frac{1}{2}$ "	13 $\frac{7}{8}$ "	8.7
2644SW	2 $\frac{3}{4}$ "	1 $\frac{3}{4}$ "	-----	-----	1 $\frac{1}{2}$ "	13 $\frac{7}{8}$ "	14
2647SW	2 $\frac{15}{16}$ "	1 $\frac{7}{8}$ "	-----	-----	1 $\frac{7}{8}$ "	16"	13
2650SW	3 $\frac{1}{8}$ "	2"	-----	-----	1 $\frac{7}{8}$ "	16"	14

HEAVY-DUTY INDUSTRIAL WRENCHES



Short Type



Long Type

Slugging Wrenches—12-Point Box Type

Industrial slugging box wrenches are designed for all types of heavy industrial work where the working space is extremely limited or highly congested. The 12-point opening fits snugly upon the bolt or nut and will remain in position while being struck with heavy hammer or sledge. These wrenches are a boon to shipbuilders (for installing or repairing machinery in ships), diesel power plants, railroad repair shops, oil refineries and other plants with heavy machinery.

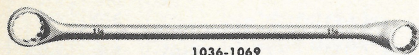
NO. SHORT TYPE	NO. LONG TYPE	NOMINAL OPENING SIZE	AM. STD. HEAVY & USS	AM. STD. REGULAR	AM. STD. LIGHT & SAE	HEAD THICKNESS	LENGTH SHORT TYPE	LENGTH LONG TYPE	WT., LBS. SHORT TYPE	WT., LBS. LONG TYPE
USN221	.....	1 $\frac{5}{16}$"	.....	$\frac{7}{8}$	.....	$\frac{7}{8}$ "	6"	.....	1.86	.....
USN223	.....	1 $\frac{7}{16}$ "	$\frac{7}{8}$	.....	1	$\frac{7}{8}$ "	6"	.....	1.82	.....
USN224	.....	1 $\frac{1}{2}$"	.....	1	.....	$\frac{7}{8}$ "	6"	.....	1.76	.....
USN226	USN326	1 $\frac{5}{8}$ "	1	.....	1 $\frac{1}{8}$	1 $\frac{1}{8}$ "	7"	10 $\frac{1}{2}$ "	3.6	3.3
USN227	USN327	1 $\frac{11}{16}$"	.....	1 $\frac{1}{8}$	.....	1 $\frac{1}{8}$ "	7"	10 $\frac{1}{2}$ "	3.5	3.4
USN229	USN329	1 $\frac{3}{16}$ "	1 $\frac{1}{8}$	.....	1 $\frac{1}{4}$	1 $\frac{1}{8}$ "	7"	10 $\frac{1}{2}$ "	3.3	3.2
USN230	USN330	1 $\frac{7}{8}$"	.....	1 $\frac{1}{4}$	.....	1 $\frac{1}{8}$ "	7"	10 $\frac{1}{2}$ "	3.2	3.2
USN232	USN332	2"	1 $\frac{1}{4}$	.....	1 $\frac{3}{8}$	1 $\frac{3}{8}$ "	7 $\frac{5}{8}$ "	11"	5.1	4.7
USN235	USN335	2 $\frac{3}{16}$ "	1 $\frac{3}{8}$	.....	1 $\frac{1}{2}$	1 $\frac{3}{8}$ "	7 $\frac{5}{8}$ "	11"	4.7	4.5
USN236	USN336	2 $\frac{1}{4}$"	.....	1 $\frac{1}{2}$	.....	1 $\frac{3}{8}$ "	7 $\frac{5}{8}$ "	11"	4.6	4.4
USN238	USN338	2 $\frac{3}{8}$ "	1 $\frac{1}{2}$	.....	.....	1 $\frac{5}{8}$ "	8 $\frac{1}{2}$ "	14 $\frac{1}{2}$ "	7.8	7.7
USN241	USN341	2 $\frac{9}{16}$ "	1 $\frac{5}{8}$	.....	.....	1 $\frac{5}{8}$ "	8 $\frac{1}{2}$ "	14 $\frac{1}{2}$ "	7.7	7.3
USN242	USN342	2 $\frac{5}{8}$"	.....	1 $\frac{3}{4}$	.....	1 $\frac{5}{8}$ "	8 $\frac{1}{2}$ "	14 $\frac{1}{2}$ "	7.3	7.2
USN244	USN344	2 $\frac{3}{4}$ "	1 $\frac{3}{4}$	.....	.....	1 $\frac{7}{8}$ "	9 $\frac{1}{2}$ "	15 $\frac{3}{4}$ "	12	11
USN247	.....	2 $\frac{15}{16}$ "	1 $\frac{7}{8}$	.....	.....	1 $\frac{7}{8}$ "	9 $\frac{1}{2}$"	.....	12	.....
USN248	USN348	3"	.....	2	.....	1 $\frac{7}{8}$ "	9 $\frac{1}{2}$ "	15 $\frac{3}{4}$ "	11	10
USN250	USN350	3 $\frac{1}{8}$ "	2	.....	.....	1 $\frac{7}{8}$ "	9 $\frac{1}{2}$ "	15 $\frac{3}{4}$ "	10	10
USN254	USN354	3 $\frac{3}{8}$"	.....	2 $\frac{1}{4}$	.....	2"	10"	17 $\frac{3}{8}$ "	15	15
USN256	USN356	3 $\frac{1}{2}$ "	2 $\frac{1}{4}$	.....	.....	2"	10"	17 $\frac{3}{8}$ "	13	14

HEAVY-DUTY INDUSTRIAL WRENCHES

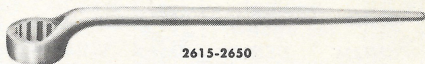
NO.	NOMINAL OPENING SIZES	AM. STD. HEAVY & USS	AM. STD. REGULAR	AM. STD. LIGHT & SAE	HEAD THICK- NESS	OVER- ALL LENGTH	WT., LBS.
1036	$\frac{11}{16}$ " $\frac{7}{8}$ "	$\frac{3}{8}$ (B) $\frac{1}{2}$	$\frac{9}{16}$	$\frac{9}{16}$	$\frac{1}{2}$ " $\frac{9}{16}$ "	11 $\frac{1}{2}$ "	.94
1041	$\frac{7}{8}$ " $1\frac{1}{16}$ "	$\frac{1}{2}$ $\frac{5}{8}$	$\frac{9}{16}$	$\frac{9}{16}$ $\frac{3}{4}$	$\frac{5}{8}$ " $1\frac{1}{16}$ "	13"	1.26
1045	$\frac{15}{16}$ " $1\frac{1}{16}$ "	$\frac{9}{16}$ (C) -----	$\frac{5}{8}$ (D) $\frac{5}{8}$ (E)	$\frac{5}{8}$	$\frac{5}{8}$ " $1\frac{1}{16}$ "	15"	1.85
1051	$1\frac{1}{16}$ " $1\frac{1}{4}$ "	$\frac{5}{8}$ $\frac{3}{4}$	-----	$\frac{3}{4}$ $\frac{7}{8}$	$\frac{5}{8}$ " $\frac{3}{4}$ "	16 $\frac{1}{2}$ "	2.8
1053	$1\frac{1}{8}$ " $1\frac{5}{16}$ "	-----	$\frac{3}{4}$ $\frac{7}{8}$	-----	$\frac{3}{4}$ " $1\frac{1}{16}$ "	18 $\frac{1}{8}$ "	2.6
1061	$1\frac{1}{4}$ " $1\frac{1}{16}$ "	$\frac{3}{4}$ $\frac{7}{8}$	-----	$\frac{7}{8}$ 1	$\frac{7}{8}$ " $1\frac{1}{16}$ "	20"	4.1
1063	$1\frac{1}{16}$ " $1\frac{5}{8}$ "	$\frac{7}{8}$ 1	-----	1 $1\frac{1}{8}$	1" 1"	22 $\frac{1}{2}$ "	5.8
1066	$1\frac{13}{16}$ " 2"	$1\frac{1}{8}$ $1\frac{1}{4}$	-----	$1\frac{1}{4}$ $1\frac{3}{8}$	$1\frac{1}{16}$ " $1\frac{1}{8}$ "	25 $\frac{3}{4}$ "	8.3
1069	$2\frac{3}{16}$ " $2\frac{5}{8}$ "	$1\frac{3}{8}$ $1\frac{1}{2}$	-----	$1\frac{1}{2}$	$1\frac{1}{4}$ " $1\frac{3}{8}$ "	27"	13

Heavy-Duty Double-End 12-Point Box Wrenches

Safety engineers and workers whole-heartedly endorse these wrenches. They are made stronger in the neck, or offset, but without increasing the thickness between the broached opening and the under side of the offset. The crescent-shaped neck is not only stronger but will work in closer places. High-pressure flanges and castings with ribs or bosses adjacent to bolt holes are examples of work where minimum rear wall thickness is invaluable.



1036-1069



2615-2650

NO.	NOMINAL OPENING SIZES	AM. STD. HEAVY & USS	AM. STD. REGULAR	AM. STD. LIGHT & SAE	HEAD THICK- NESS	OVER- ALL LENGTH	WT., LBS.
2615	$\frac{15}{16}$ "	$\frac{9}{16}$ (C)	$\frac{5}{8}$ (D)	$\frac{5}{8}$	$\frac{5}{8}$ "	11 $\frac{3}{4}$ "	.92
2617	$1\frac{1}{16}$ "	$\frac{5}{8}$	-----	$\frac{3}{4}$	$1\frac{1}{16}$ "	11 $\frac{1}{8}$ "	2.2
2618	$1\frac{1}{8}$ "	-----	$\frac{3}{4}$	-----	$\frac{3}{4}$ "	12 $\frac{3}{8}$ "	2.6
2620	$1\frac{1}{4}$ "	$\frac{3}{4}$	-----	$\frac{7}{8}$	$\frac{3}{4}$ "	13 $\frac{3}{8}$ "	2.0
2623	$1\frac{1}{16}$ "	$\frac{7}{8}$	-----	1	$1\frac{5}{16}$ "	15 $\frac{7}{8}$ "	3.8
2624	$1\frac{1}{2}$ "	-----	1	-----	1"	17 $\frac{1}{8}$ "	3.0
2626	$1\frac{5}{8}$ "	1	-----	$1\frac{1}{8}$	1"	18 $\frac{1}{4}$ "	2.5
2627	$1\frac{11}{16}$ "	-----	$1\frac{1}{8}$	-----	1"	19 $\frac{3}{8}$ "	4.3
2629	$1\frac{13}{16}$ "	$1\frac{1}{8}$	-----	$1\frac{1}{4}$	$1\frac{1}{16}$ "	20 $\frac{5}{8}$ "	5.5
2630	$1\frac{7}{8}$ "	-----	$1\frac{1}{4}$	-----	$1\frac{1}{8}$ "	21 $\frac{3}{4}$ "	5.9
2632	2"	$1\frac{1}{4}$	-----	$1\frac{3}{8}$	$1\frac{1}{8}$ "	23"	5.6
2635	$2\frac{3}{16}$ "	$1\frac{3}{8}$	-----	$1\frac{1}{2}$	$1\frac{1}{4}$ "	24 $\frac{1}{8}$ "	7.2
2638	$2\frac{5}{8}$ "	$1\frac{1}{2}$	-----	-----	$1\frac{3}{8}$ "	25 $\frac{1}{4}$ "	7.8
2641	$2\frac{9}{16}$ "	$1\frac{5}{8}$	-----	-----	$1\frac{1}{2}$ "	26 $\frac{1}{2}$ "	8.3
2644	$2\frac{3}{4}$ "	$1\frac{3}{4}$	-----	-----	$1\frac{1}{2}$ "	27 $\frac{3}{4}$ "	15
2647	$2\frac{15}{16}$ "	$1\frac{7}{8}$	-----	-----	$1\frac{7}{8}$ "	28 $\frac{7}{8}$ "	16
2650	$3\frac{1}{8}$ "	2	-----	-----	$1\frac{7}{8}$ "	30"	14

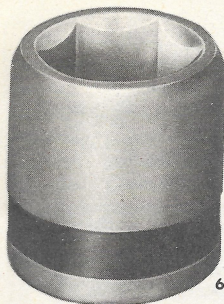
Heavy-Duty Spud-End 12-Point Box Wrenches

You will note an innovation in this wrench, as a real safety factor has been introduced. It is a combination box wrench with tapered spud handle, which makes quick work of loosening frozen or corroded bolts or nuts. The spud end is very handy for aligning holes in flanges. Note the clearance provided by the offset head which overcomes the usual clearance problems. These wrenches are ideal for construction, refineries, etc.

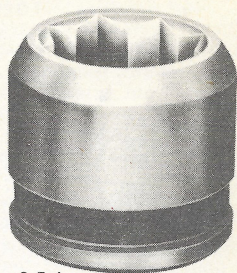
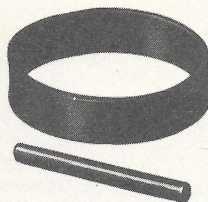
(B) Am. St. Hvy. Nuts & USS Only. (C) Am. St. Hvy. Only.

(D) Bolt Heads Only. (E) Nuts Only.

IMPACT SOCKET WRENCHES



6-Point



8-Point

Made of finest alloy steels, designed especially for the job, and manufactured to rigid specifications, these rugged impact sockets give long, satisfactory service under the hardest conditions. They are used

by tractor repair shops, railroads, oil refineries, tank manufacturers, constructors using heavy equipment, body builders, and many factories for assembly and maintenance work.

3/4" SQUARE DRIVE SOCKETS—6-POINT (SINGLE HEXAGON)

NO.	NOMINAL OPENING SIZE	AM. STD. HEAVY & USS	AM. STD. REGULAR BLT. HDS.	AM. STD. REGULAR NUTS	AM. STD. LIGHT & SAE	DEPTH OF PUNCHED OPENING	DIAMETER OF NOSE	DIAMETER OF DRIVE END	OVER-ALL LENGTH	WT., LBS.	GMC & CHRYSLER NUMBER
07512	3/4"	---	1/2	3/16	1/2	5/8"	1.156"	1.625"	1 7/8"	.70	948671
07513	13/16"	---	1/2	1/2	---	5/8"	1.156"	1.625"	1 7/8"	.64	948673
07514	7/8"	3/16	9/16	9/16	9/16	5/8"	1.250"	1.625"	2"	.63	948674
07515	15/16"	9/16 (C)	5/8	5/8	5/8	5/8"	1.313"	1.750"	2"	.86	948675
07516	1"	---	5/8	---	---	5/8"	1.438"	1.875"	2 1/16"	.98	948676
07517	1 1/16"	5/8	---	---	3/4	3/4"	1.500"	1.875"	2 1/16"	1.00	948677
07518	1 1/8"	3/4	3/4	3/4	---	13/16"	1.594"	2.000"	2 3/16"	1.30	948678
07520	1 1/4"	3/4	---	---	7/8	1 1/16"	1.719"	2.125"	2 3/16"	1.40	948680
07521	1 1/2"	---	7/8	7/8	---	1 1/8"	1.813"	2.125"	2 3/16"	1.60	948681
07523	1 5/8"	7/8	---	---	1	1 1/2"	1.938"	2.250"	2 3/16"	1.50	948683

1" SQUARE DRIVE SOCKETS—6-POINT (SINGLE HEXAGON)

10018	1 1/8"	---	3/4	3/4	---	3/4"	1.594"	2.125"	2 3/16"	1.32	948609
10020	1 1/4"	3/4	---	---	7/8	3/4"	1.719"	2.125"	2 3/16"	1.30	948611
10021	1 1/2"	---	7/8	7/8	---	3/4"	1.813"	2.125"	2 3/16"	1.24	948612
10023	1 5/8"	7/8	---	---	1	1 1/8"	1.938"	2.250"	2 3/16"	1.44	948614
10024	1 3/4"	---	1	1	---	1 1/4"	2.094"	2.313"	2 3/16"	1.48	948615
10026	1 5/8"	1	---	---	1 1/8	1 1/8"	2.219"	2.438"	2 7/16"	1.90	948617
10027	1 11/16"	---	1 1/8	1 1/8	---	1 3/8"	2.313"	2.563"	2 7/16"	2.1	948618
10029	1 13/16"	1 1/8	---	---	1 1/4	1 3/8"	2.438"	2.750"	2 7/16"	2.1	948620
10030	1 7/8"	---	1 1/4	1 1/4	---	1 1/2"	2.531"	2.750"	2 7/16"	2.4	948621
10032	2"	1 1/4	---	---	1 3/8	1 1/2"	2.656"	3.000"	2 7/16"	3.0	948623
10033	2 1/16"	---	1 3/8	1 3/8	---	1 1/2"	2.750"	3.000"	2 7/16"	3.0	948624
10035	2 3/16"	1 3/8	---	---	1 1/2	1 3/8"	2.875"	3.250"	2 7/16"	3.9	948626

1" SQUARE DRIVE SOCKETS—8-POINT (DOUBLE SQUARE)

10018S	1 1/8"	---	3/4	3/4	---	3/4"	1.906"	2.250"	2 3/4"	1.70	948647
10020S	1 1/4"	3/4	---	---	7/8	3/4"	2.031"	2.375"	2 3/4"	1.80	948649
10021S	1 1/2"	---	7/8	7/8	---	3/4"	2.156"	2.563"	2 3/4"	2.2	948650
10023S	1 5/8"	7/8	---	---	1	1 1/8"	2.375"	2.625"	2 3/4"	2.1	948652

(C) American Standard Heavy Only.

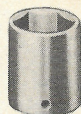
3/8" SQ. DR. POWER SOCKET WRENCHES

Selected steels and advanced design provide these power sockets with great strength, toughness, snug fit, freedom from slipping, and maximum clearance for speed and ease in handling. All of these features combine to give long life and a high safety factor.

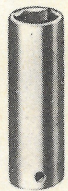
They are made to fit most common types of power nut-running equipment, and they can be adapted to many other power tools. They also fit regular socket wrench handles and attachments, and therefore are ideal for many jobs demanding strength greater than provided in regular 12-point sockets.

Specifications conform to those of all major automobile manufacturing and assembly plants. They are used extensively by all types of manufacturers and are noted for their outstanding performance on production lines. In addition to assembly and maintenance work in factories, they are popular with mechanics for repairing tractors, trucks, buses and automobiles.

The complete line, listed on this page and the two following pages, includes a wide variety of opening sizes and socket types—providing the right power socket for practically every need.



Regular 6-Pt.
Socket



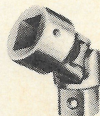
Deep Socket



Universal
Socket



Extension



Universal
Joint

REGULAR SOCKETS — 6-POINT (SINGLE HEXAGON)

NO.	NOMINAL OPENING SIZE	DEPTH OF PUNCHED OPENING	DIAM. OF NOSE	DIAM. OF DRIVE END	OVERALL LENGTH	GMC & CHRYSLER NUMBER	FORD NUMBER	WT., LBS.
7210H	5/16"	9/32"	.474"	.687"	7/8"	...	1R1	.06
7211H	1/32"	9/32"	.507"	.687"	7/8"	782961	1R2	.07
7212H	3/8"	9/32"	.547"	.687"	7/8"	782962	1R4	.07
7214H	7/16"	9/32"	.628"	.687"	7/8"	782963	1R8	.07
7216H	1/2"	9/32"	.708"	.750"	7/8"	782964	1R12	.08
7218H	9/16"	9/32"	.786"	.812"	7/8"	782965	1R17	.10
7220H	5/8"	9/32"	.870"	.875"	7/8"	782966	1R23	.11
7222H	11/16"	13/32"	.947"	1.000"	1"	782967	1R28	.24
7224H	3/4"	13/32"	1.027"	1.062"	1"	782968	1R32	.22

EXTRA DEEP SOCKETS — 6-POINT (SINGLE HEXAGON)

7011H	11/32"	9/32"	.507"	.687"	1 1/2"	782971	1R3	.11
7012H	3/8"	9/32"	.547"	.687"	1 1/2"	782972	1R5	.13
7014H	7/16"	27/64"	.628"	.687"	1 1/2"	782973	1R9	.14
7016H	1/2"	27/64"	.708"	.750"	1 1/2"	782974	1R13	.16
7018H	9/16"	27/64"	.786"	.812"	1 1/2"	782975	1R18	.20
7020H	5/8"	17/32"	.870"	.875"	1 1/2"	782976	1R24	.22
7022H	11/16"	33/64"	.947"	1.000"	1 1/2"	782977	1R29	.30
7024H	3/4"	9/16"	1.027"	1.062"	1 1/2"	782978	1R33	.32

UNIVERSAL SOCKETS — 6-POINT (SINGLE HEXAGON)

7273H	3/8"	9/32"	.530"	.625"	1 7/8"	†782909	3R1	.11
7274H	7/16"	27/64"	.609"	.625"	1 7/8"	†782910	3R2	.12
7275H	1/2"	3/8"	.687"	.687"	1 7/8"	†782911	3R4	.13
7276H	9/16"	27/64"	.790"	.750"	1 7/8"	†782912	3R6	.14
7277H	5/8"	15/32"	.875"	.750"	1 7/8"	†782913	3R8	.17

POWER SOCKET EXTENSIONS

3/8" Square by 7/16" Hexagon Drive

NO.	SHANK DIAM.	LENGTH	GMC NO.	FORD NO.	WT., LBS.
7111	9/16"	2 3/4"	785481	4R33	.15
7113	9/16"	5"	785482	4R38	.30
7115	9/16"	8"	785483	4R43	.55
7117	9/16"	12"	785484	4R48	.80
7119	9/16"	18"	785485	4R52	1.00

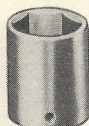
†GMC Specifications only.

Note: For STANDARD Nut, Bolt and Cap Screw Sizes, Corresponding to NOMINAL Opening Sizes of Power Sockets, See Chart Opposite Page 64.

No. 7270 Universal Joint

2" Long, 3/8" Square Male and Female Connections. Wt., .15 Lb.

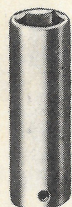
1/2" SQ. DR. POWER SOCKET WRENCHES



Regular 6-Pt. Socket



Regular 8-Pt. Socket



Deep Socket



Universal Socket



Extension

REGULAR SOCKETS — 6-POINT (SINGLE HEXAGON)

NO.	NOMINAL OPENING SIZE	DEPTH OF PUNCHED OPENING	DIAM. OF NOSE	DIAM. OF DRIVE END	OVERALL LENGTH	GMC & CHRYSLER NUMBER	FORD NUMBER	WT., LBS.
7412H	3/8"	5/16"	.600"	.875"	1 1/2"	785561	1R6	.14
7414H	1/2"	21/64"	.685"	.875"	1 1/2"	785562	1R10	.14
7416H	5/8"	3/8"	.768"	.937"	1 1/2"	785563	1R14	.14
7418H	3/4"	27/64"	.849"	.937"	1 1/2"	785564	1R19	.14
7420H	7/8"	15/32"	.936"	1.000"	1 1/2"	785565	1R25	.18
7422H	1 1/16"	33/64"	1.017"	1.062"	1 1/2"	785566	1R30	.22
7424H	3/4"	3/16"	1.100"	1.125"	1 1/2"	785567	1R34	.27
7426H	13/16"	29/64"	1.185"	1.250"	1 1/2"	785568	1R38	.28
7428H	7/8"	21/32"	1.268"	1.312"	1 1/2"	785569	1R40	.33
7430H	15/16"	45/64"	1.349"	1.437"	1 3/4"	785570	1R44	.45
7432H	1"	3/4"	1.435"	1.500"	1 3/4"	785571	1R49	.50
7434H	1 1/16"	51/64"	1.517"	1.562"	2"	785625	1R53	.55
7436H	1 1/8"	27/32"	1.600"	1.687"	2"	785626	1R56	.68
7440H	1 1/4"	13/16"	1.750"	1.750"	2 1/8"	-----	-----	.82

REGULAR SOCKETS — 8-POINT (DOUBLE SQUARE)

NO.	NOMINAL OPENING SIZE	DEPTH OF PUNCHED OPENING	DIAM. OF NOSE	DIAM. OF DRIVE END	OVERALL LENGTH	GMC & CHRYSLER NUMBER	FORD NUMBER	WT., LBS.
7412S	3/8"	9/32"	.707"	.875"	1 1/2"	782941	2R4	.21
7414S	1/2"	21/64"	.809"	.937"	1 1/2"	782942	2R6	.22
7416S	5/8"	3/8"	.908"	1.000"	1 1/2"	782943	2R8	.25
7418S	3/4"	27/64"	1.006"	1.125"	1 1/2"	782944	2R9	.31
7420S	7/8"	15/32"	1.109"	1.187"	1 1/2"	782945	2R10	.45
7422S	1 1/16"	33/64"	1.207"	1.250"	1 1/2"	782946	2R11	.48
7424S	3/4"	3/16"	1.306"	1.375"	1 1/2"	782947	2R12	.57
7426S	13/16"	29/64"	1.409"	1.500"	1 1/2"	782948	2R13	.63
7428S	7/8"	21/32"	1.508"	1.562"	1 1/2"	782949	2R14	.75
7430S	15/16"	45/64"	1.606"	1.687"	1 3/4"	782950	2R16	.84
7432S	1"	3/4"	1.711"	1.750"	1 3/4"	782951	2R18	.93

EXTRA DEEP SOCKETS — 6-POINT (SINGLE HEXAGON)

NO.	NOMINAL OPENING SIZE	DEPTH OF PUNCHED OPENING	DIAM. OF NOSE	DIAM. OF DRIVE END	OVERALL LENGTH	GMC & CHRYSLER NUMBER	FORD NUMBER	WT., LBS.
7312H	3/8"	9/32"	.600"	.875"	3 1/4"	778341	1R7	.30
7314H	1/2"	21/64"	.685"	.875"	3 1/4"	778342	1R11	.31
7316H	5/8"	3/8"	.768"	.937"	3 1/4"	778343	1R15	.31
7318H	3/4"	27/64"	.849"	.937"	3 1/4"	778344	1R20	.38
7320H	7/8"	15/32"	.936"	1.000"	3 1/4"	778345	1R26	.38
7322H	1 1/16"	33/64"	1.017"	1.062"	3 1/4"	778346	1R31	.41
7324H	3/4"	3/16"	1.100"	1.125"	3 1/4"	778347	1R36	.54
7326H	13/16"	29/64"	1.185"	1.250"	3 1/4"	778348	1R39	.55
7328H	7/8"	21/32"	1.268"	1.312"	3 1/2"	778349	1R42	.60
7330H	15/16"	45/64"	1.349"	1.437"	3 1/2"	778350	1R46	.65
7332H	1"	3/4"	1.435"	1.500"	3 1/2"	778351	1R51	.69
7336H	1 1/8"	13/16"	1.562"	1.562"	3 1/2"	-----	1R57	.95

UNIVERSAL SOCKETS — 6-POINT (SINGLE HEXAGON)

NO.	NOMINAL OPENING SIZE	DEPTH OF PUNCHED OPENING	DIAM. OF NOSE	DIAM. OF DRIVE END	OVERALL LENGTH	GMC & CHRYSLER NUMBER	FORD NUMBER	WT., LBS.
7474H	1/16"	21/64"	.690"	.875"	2 3/4"	-----	3R3	.24
7475H	1/8"	3/8"	.757"	.875"	2 3/8"	†782914	3R5	.25
7476H	3/16"	27/64"	.837"	.875"	2 1/2"	†782915	3R7	.26
7477H	1/4"	15/32"	.937"	.937"	2 1/2"	†782916	3R9	.26
7478H	5/16"	33/64"	1.020"	1.031"	2 1/2"	†782917	3R10	.30
7479H	3/8"	3/16"	1.088"	1.125"	2 1/4"	†782918	3R11	.33

7470 Universal Joint, 2 3/8" Long, 1/2" Square Male and Female Connections. Wt., .25 Lb.
†GMC Specifications Only.

POWER SOCKET EXTENSIONS

1/2" Square by 7/16" Hexagon Drive						1/2" Square by 5/8" Hexagon Drive					
NO.	SHANK DIAM.	LENGTH	GMC NO.	FORD NO.	WT., LBS.	NO.	SHANK DIAM.	LENGTH	GMC NO.	FORD NO.	WT., LBS.
7121	11/16"	2 3/4"	785486	4R34	.18	7131	3/4"	2 3/4"	785491	4R35	.22
7123	11/16"	5"	785487	4R39	.38	7133	3/4"	5"	785492	4R40	.45
7125	11/16"	8"	785488	4R44	.67	7135	3/4"	8"	785493	4R45	.75
7127	11/16"	12"	785489	4R49	1.06	7137	3/4"	12"	785494	4R50	1.20
7128	11/16"	18"	785490	4R53	1.62	7138	3/4"	18"	785495	4R54	2.00

5/8" SQ. DR. POWER SOCKET WRENCHES

REGULAR SOCKETS — 6-POINT (SINGLE HEXAGON)

NO.	NOMINAL OPENING SIZE	DEPTH OF PUNCHED OPENING	DIAM. OF NOSE	DIAM. OF DRIVE END	OVERALL LENGTH	GMC & CHRYSLER NUMBER	FORD NUMBER	WT., LBS.
7624H	3/4"	9/16"	1.105"	1.250"	1 1/2"	.....	1R35	.35
7628H	7/8"	27/32"	1.273"	1.250"	1 1/2"	.....	1R41	.41
7629H	29/32"	11/16"	1.320"	1.250"	1 3/4"	.....	1R43	.41
7630H	1 1/8"	45/64"	1.349"	1.437"	2"	785627	1R45	.43
7632H	1"	3/4"	1.435"	1.500"	2"	785628	1R50	.50
7634H	1 1/16"	57/64"	1.517"	1.562"	2"	785572	1R54	.52
7636H	1 1/8"	27/32"	1.600"	1.687"	2"	785573	1R58	.52
7638H	1 3/16"	57/64"	1.686"	1.812"	2"	785574	1R59	.58
7640H	1 1/4"	15/16"	1.769"	1.812"	2"	785575	1R61	.67
7642H	1 1/8"	63/64"	1.845"	1.875"	2"	785576	1R63	.78
7644H	1 3/8"	1 1/32"	1.928"	2.000"	2 1/4"	785577	1R65	.78
7646H	1 1/2"	1 5/16"	2.004"	2.062"	2 1/4"	785578	1R67	.88
7648H	1 1/2"	1 1/8"	2.082"	2.125"	2 3/8"	785579	1R69	1.00

EXTRA DEEP SOCKETS — 6-POINT (SINGLE HEXAGON)

7534H	1 1/16"	51/64"	1.517"	1.562"	3 1/2"	778352	1R55	.90
7536H	1 1/8"	27/32"	1.600"	1.687"	3 1/2"	778353	.....	1.00
7538H	1 3/16"	57/64"	1.686"	1.750"	3 1/2"	778354	1R60	1.10
7540H	1 1/4"	15/16"	1.769"	1.812"	3 1/2"	778355	1R62	1.20
7542H	1 3/8"	63/64"	1.845"	1.937"	3 1/2"	778356	1R64	1.40
7544H	1 3/8"	1 1/32"	1.928"	2.000"	3 1/2"	778357	1R66	1.50
7546H	1 1/2"	1 5/16"	2.004"	2.062"	3 1/2"	778358	1R68	1.60
7548H	1 1/2"	1 1/8"	2.082"	2.125"	3 1/2"	778359	1R70	1.75

POWER SOCKET EXTENSIONS

5/8" Square by 5/8" Hexagon Drive

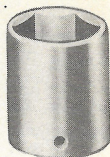
NO.	SHANK DIAM.	LENGTH	GMC NO.	FORD NO.	WT., LBS.
7151	13/16"	3"	785496	4R36	.30
7153	13/16"	5"	785497	4R41	.50
7155	13/16"	8"	785498	4R46	.90
7157	13/16"	12"	785499	4R51	1.50
7159	13/16"	18"	785500	4R55	2.5

No. 7655 Adapter

Has 5/8" square female opening and 1/2" square plug. Allows use of 1/2" drive sockets on 5/8" drive power gun. Length, 2". Wt., .41 Lb.

Stud Pullers

See Page 47



Regular 6-
Pt. Socket



Deep Socket



Extension

3/4" SQUARE DRIVE POWER SOCKET WRENCHES

REGULAR SOCKETS — 6-POINT (SINGLE HEXAGON)

NO.	NOMINAL OPENING SIZE	DEPTH OF PUNCHED OPENING	DIAM. OF NOSE	DIAM. OF DRIVE END	OVERALL LENGTH	GMC & CHRYSLER NUMBER	WT., LBS.
7828H	7/8"	21/32"	1.312"	1.437"	2"	785580	.50
7830H	1 1/16"	11/16"	1.375"	1.437"	2"	785581	.50
7831H	37/32"	11/16"	1.406"	1.437"	2"	785623	.54
7832H	1"	3/4"	1.440"	1.500"	2 1/16"	785582	.62
7834H	1 1/16"	13/16"	1.562"	1.500"	2 1/8"	785583	.62
7836H	1 1/8"	27/32"	1.625"	1.500"	2 3/16"	785584	.72
7838H	1 3/16"	7/8"	1.687"	1.500"	2 1/4"	785585	.86
7840H	1 1/4"	15/16"	1.781"	1.500"	2 1/4"	785586	.86
7842H	1 5/16"	31/32"	1.875"	1.625"	2 5/16"	785587	.97
7844H	1 3/8"	1 1/32"	1.937"	1.625"	2 5/16"	785588	1.10

Note: For STANDARD Nut and Bolt Sizes, Corresponding to NOMINAL Socket Openings, See Chart Opposite Page 64.

1/4" SQ. DR. MIDGET SOCKET WRENCHES

Only Midget Tools can do fast, efficient work on intricate jobs—you should have a complete 1/4" Square Drive assortment.

Midget sockets save time and trouble on little jobs that ordinary sockets can't handle, such as the repair of carburetors, distributors, radios, instruments, etc. They are accurately made from finest steels for super strength—and scientifically heat treated to insure long, dependable service.

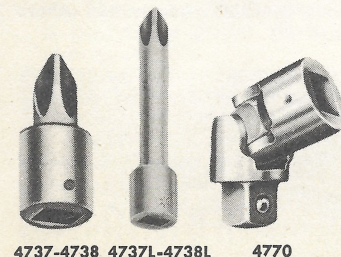
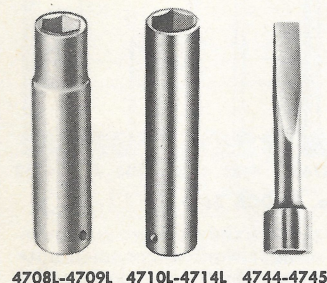
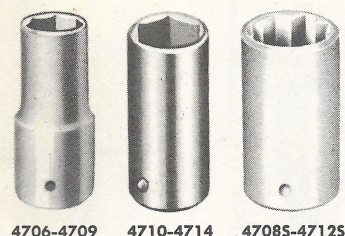
REGULAR SOCKETS — 6-, 8- AND 12-POINT

NO.	OPENING SIZE	NO. OF PTS.	AM. ST. HEAVY & USS	AM. ST. REGULAR		AM. ST. LIGHT & SAE	OVER-ALL LGTH.	WT., LBS.
				BOLT-HEADS	NUTS			
4706	3/16"	6	---	---	#2 & 3	---	1"	.02
4707	7/32"	6	---	---	---	---	1"	.02
4708	1/4"	6	---	---	#4	---	1"	.02
4708S	1/4"	8	---	---	#4	---	1"	.02
4709	9/32"	6	---	---	---	---	1"	.03
4710	5/16"	6	1/8(A)	---	#5 & 6	---	1"	.03
4710S	5/16"	8	1/8(A)	---	#5 & 6	---	1"	.04
4711	11/32"	6	---	---	#8	---	1"	.03
4712	3/8"	6	---	1/4	#10	---	1"	.04
4712S	3/8"	8	---	1/4	#10	---	1"	.03
4714	7/16"	6	---	---	#12 & 1/4	1/4	1"	.05
4716	1/2"	12	1/4(B)	5/16	---	5/16	1"	.05

EXTRA DEEP SOCKETS — 6-POINT

4708L	1/4"	6	---	---	#4	---	2"	.03
4709L	9/32"	6	---	---	---	---	2"	.05
4710L	5/16"	6	1/8(A)	---	#5 & 6	---	2"	.05
4711L	11/32"	6	---	---	#8	---	2"	.06
4712L	3/8"	6	---	1/4	#10	---	2"	.08
4714L	7/16"	6	---	---	#12 & 1/4	1/4	2"	.11

(A) USS Only. (B) Am. Std. Heavy Nuts & USS Only.



SCREWDRIVER SOCKETS

NO.	SIZE OF BIT	LENGTH	WT., LBS.
4737	Phillips No. 1	1"	.02
4737L	Phillips No. 1	2"	.03
4738	Phillips No. 2	1"	.02
4738L	Phillips No. 2	2"	.03
4744	3/16" x .030"	1 3/4"	.03
4745	1/4" x .030"	3"	.06

No. 4770 Universal Joint

Has 1/4" square female opening and drive plug. Makes work easier when working at a difficult angle. Length, 1 7/32". Wt., .03 Lb.

1/4" SQ. DRIVE MIDGET SOCKET WRENCH HANDLES, ATTACHMENTS AND SET

HANDLES

NO.	DESCRIPTION	OVERALL LENGTH	WT., LBS.
4749	Reversible Ratchet	5"	.18
4766	Hinge Handle	5 3/8"	.16
4766PH	Pin Handle	4"	.03
4767	Spintype Plastic Handle, Stubby	2 5/32"	.08
4769	Spintype Plastic Handle, Regular	6"	.13
4780	Speed Handle	16"	.40
4785	Sliding Bar Handle	4 1/2"	.08

PARTS FOR RATCHET 4749

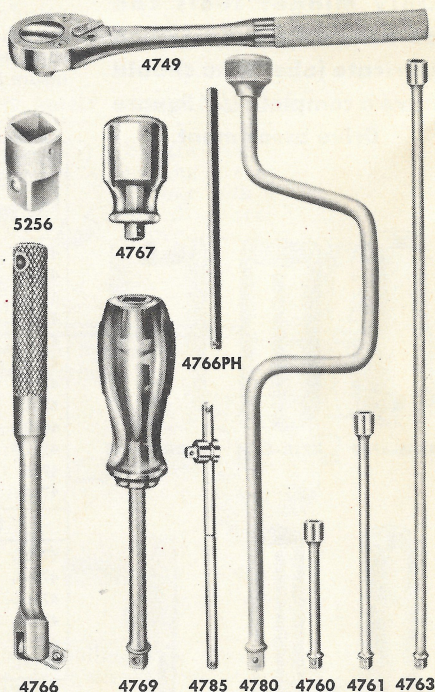
NO.	DESCRIPTION	NO.	DESCRIPTION
4749C	Cover	4749R	Reversing Assembly
4749DL	Dog, Left	4749S	Spring
4749DR	Dog, Right	4749W	Wheel with Plug
4749H	Cover Screw		

ATTACHMENTS

NO.	DESCRIPTION	OVERALL LENGTH	WT., LBS.
4760	Extension	3 1/2"	.06
4761	Extension	6"	.10
4763	Extension	14"	.20
4770	Universal Joint	1 7/32"	.03
5256	Adapter, 1/4" F., 3/8" M.	1 15/16"	.03
5255	Adapter, 3/8" F., 1/4" M.	1 15/16"	.03

STEEL SOCKET SET BOX

4795	1"x2 1/4"x6 3/4" (Page 63)	6 1/2"	.38
------	----------------------------	--------	-----

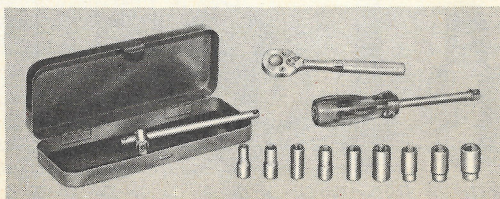


No. 4700B Set

Here is a complete set of handy midget tools, designed for all kinds of light work where small nuts and bolts must be turned. The set includes a useful selection of basic tools to which you can add others as your needs require.

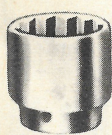
Contents

NO.	DESCRIPTION
4707	Socket, 6-Point, 7/32" Opening
4708	Socket, 6-Point, 1/4" Opening
4708S	Socket, 8-Point, 1/4" Opening
4709	Socket, 6-Point, 9/32" Opening
4710	Socket, 6-Point, 5/16" Opening
4710S	Socket, 8-Point, 5/16" Opening
4711	Socket, 6-Point, 11/32" Opening
4712	Socket, 6-Point, 3/8" Opening
4714	Socket, 6-Point, 7/16" Opening
4749	Reversible Ratchet, 5" Long
4769	Spintype Handle, 6" Long
4785	Sliding Bar Handle, 4 1/2" Long
4795	Steel Box, 1"x2 1/4"x6 3/4"
Weight, 1.16 Lbs.	

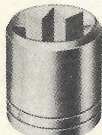


3/8" SQ. DRIVE CUB SOCKET WRENCHES

These sockets, with thin walls, enable you to get at the hard-to-reach nuts. They're tops in quality, workmanship and design.



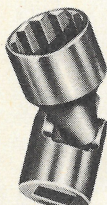
5218-5228



52085-52165



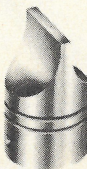
5012-5028



5272-5279



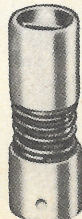
5241-5243



5244



5246



5239 & 5245

★ REGULAR SOCKETS — 12-POINT

NO.	OPENING SIZE	AM. STD. HEAVY & USS	AM. STD. REGULAR		AM. STD. LIGHT & SAE	OVER-ALL LENGTH	WT., LBS.
			BOLT-HEADS	NUTS			
5210	5/16"	1/8(A)	---	#5 & 6	---	15 1/16"	.04
5212	3/8"	---	1/4	#10	---	15 1/16"	.04
5214	7/16"	---	---	#12 & 1/4	1/4	15 1/16"	.04
5216	1/2"	1/4(B)	5/16	---	5/16	15 1/16"	.05
5218	9/16"	---	3/8	5/16	3/8	1"	.06
5220	5/8"	---	1/2	3/8	1/2	1"	.07
5222	11/16"	3/8(B)	---	---	---	1 1/16"	.09
5224	3/4"	---	1/2	1/2	1/2	1 1/16"	.10
5226	13/16"	---	---	1/2	---	1 1/8"	.13
5228	7/8"	1/2	3/4	3/4	3/4	1 1/2"	.17

★ REGULAR SOCKETS — 8-POINT

5208S	1/4"	---	---	#4	---	15 1/16"	.04
5210S	5/16"	1/8(A)	---	#5 & 6	---	15 1/16"	.04
5212S	3/8"	---	1/4	#10	---	15 1/16"	.05
5214S	7/16"	---	---	#12 & 1/4	1/4	15 1/16"	.06
5216S	1/2"	1/4(B)	5/16	---	5/16	1"	.10

★ EXTRA DEEP SOCKETS — 12-POINT

5012	3/8"	---	1/4	#10	---	21 3/8"	.10
5014	7/16"	---	---	#12 & 1/4	1/4	21 3/8"	.10
5016	1/2"	1/4(B)	5/16	---	5/16	21 3/8"	.10
5018	9/16"	---	3/8	5/16	3/8	21 3/8"	.13
5020	5/8"	---	1/2	3/8	1/2	21 3/8"	.13
5022	11/16"	3/8(B)	---	---	---	21 3/8"	.20
5024	3/4"	---	1/2	1/2	1/2	21 3/8"	.22
5026	13/16"	---	---	1/2	---	21 3/8"	.28
5028	7/8"	1/2	3/4	3/4	3/4	21 3/8"	.31

★ UNIVERSAL SOCKETS — 12-POINT

5273	3/8"	---	1/4	#10	---	17 1/16"	.09
5274	7/16"	---	---	#12 & 1/4	1/4	17 1/16"	.09
5275	1/2"	1/4(B)	5/16	---	5/16	17 1/16"	.10
5276	9/16"	---	3/8	5/16	3/8	17 1/16"	.10
5277	5/8"	---	1/2	3/8	1/2	17 1/16"	.14
5278	11/16"	3/8(B)	---	---	---	17 1/16"	.14
5279	3/4"	---	1/2	1/2	1/2	17 1/16"	.16
5272	13/16"	---	---	1/2	---	17 1/16"	.18

(A) USS Only. (B) Am. Std. Heavy Nuts & USS Only.

★ For Heavy-Duty 6-Point (Single Hex.) Sockets, see Page 18-20.

†No. 5244 is used for slotted screw adjustments on steering assemblies, shock absorbers, starters, generators, etc.

SCREWDRIVER SOCKETS

NO.	SIZE OF BIT	LENGTH	WT., LBS.
5240	5/16" x .040"	3 1/4"	.08
5241	Phillips No. 2	1 5/8"	.30
5242	Phillips No. 3	1 5/8"	.30
5243	Phillips No. 4	1 5/8"	.30
†5244	1 1/16" x .116"	1 1/4"	.07
5246	1/4" x .030"	2"	.04
†5239	9/16" x .063"	1 7/8"	.12
†5245	7/16" x .051"	1 7/8"	.10

†Nos. 5239 and 5245 have a spring-held centering device over the bit and are used on oil pan bolts of Chevrolets and other cars. No. 5239 fits 1940 and later model Chevrolets. No. 5245 fits 1939 and earlier model Chevrolets.

3/8" SQ. DRIVE CUB SOCKET WRENCH HANDLES AND CROWFOOT WRENCHES

Handles and attachments permit an almost unlimited number of assemblies for doing difficult jobs. The ratchet is light, strong, trouble-free, long-lived and reversible at flip of lever. Hinge handles, noted for strength and versatility, have hole for inserting pin handle to make a tee or ell attachment. The sliding bar handle provides good leverage with the plug at the end or can be used as a tee handle. Speed handles are for fast running of nuts and bolts.

HANDLES

NO.	DESCRIPTION	LENGTH	WT., LBS.
5249	Reversible Ratchet	7"	.50
5265	Hinge Handle	7 $\frac{3}{8}$ "	.35
5266	Hinge Handle	12"	.71
5266PH	Pin Handle, $\frac{5}{16}$ " Round Stock	7 $\frac{1}{2}$ "	.16
5280	Speed Handle	16 $\frac{1}{2}$ "	.83
5281	Speed Handle	14 $\frac{1}{2}$ "	.74
5283	Speed Handle	30 $\frac{3}{8}$ "	1.25
5285	Sliding Bar Handle	8"	.32

PARTS FOR RATCHET 5249

NO.	DESCRIPTION	NO.	DESCRIPTION
5249C	Cover	5249R	Reversing Assembly
5249DL	Dog, Left	5249S	Spring
5249DR	Dog, Right	5249W	Wheel with Plug
5249H	Cover Screw		

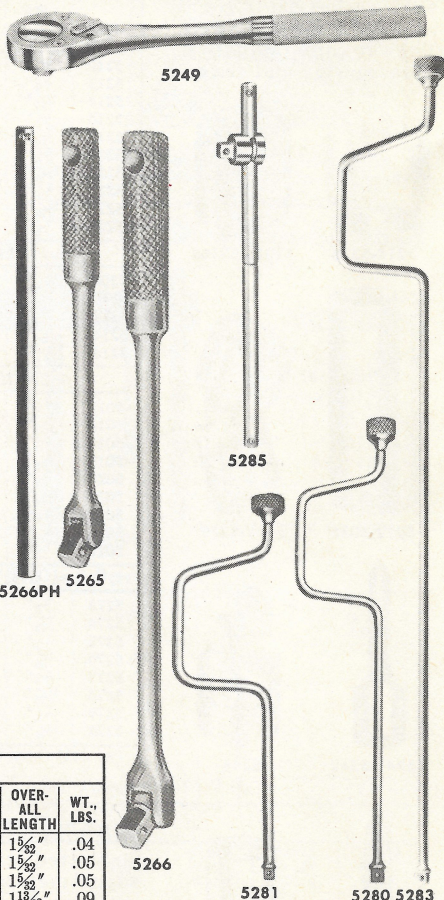
STEEL SET BOXES & SOCKET RACK

NO.	DESCRIPTION	WT., LBS.
5294	Box, 10 $\frac{1}{4}$ "x2 $\frac{1}{4}$ "x1 $\frac{1}{4}$ " (Page 63)	.72
5295	Box, 18 $\frac{1}{2}$ "x5 $\frac{1}{4}$ "x1 $\frac{1}{2}$ " (Page 63)	2.4
5297	Rack for 17 Sockets, 18 $\frac{1}{4}$ " Long (Page 62)	.57

CROWFOOT WRENCHES

NO.	OPENING SIZE	AM. ST. HEAVY & USS	AM. ST. BOLT-HEADS	REGULAR NUTS	AM. ST. LIGHT & SAE	OVER-ALL LENGTH	WT., LBS.
4912	3/8"	----	1/4	#10	1/4	15 $\frac{3}{32}$ "	.04
4914	7/16"	----	1/4	#12 & 1/4	1/4	15 $\frac{3}{32}$ "	.05
4916	1/2"	1/4 (B)	5/16	5/16	5/16	15 $\frac{3}{32}$ "	.05
4918	9/16"	----	3/8	3/8	3/8	15 $\frac{3}{32}$ "	.09
4920	5/8"	----	1/2	1/2	1/2	15 $\frac{3}{32}$ "	.08
4922	1 1/16"	3/8 (B)	1/2	1/2	1/2	15 $\frac{3}{32}$ "	.08
4924	3/4"	----	1/2	1/2	1/2	15 $\frac{3}{32}$ "	.14
4926	13/16"	----	1/2	1/2	1/2	15 $\frac{3}{32}$ "	.16
4928	1 1/8"	1/2	9/16	9/16	9/16	15 $\frac{3}{32}$ "	.18
4932	1"	----	9/16	9/16	9/16	15 $\frac{3}{32}$ "	.20
4940	1 1/4"	3/4	----	----	7/8	21 $\frac{3}{32}$ "	.27
4944	1 3/8"	----	----	----	----	21 $\frac{3}{32}$ "	.23

(B) American Standard Heavy Nuts & USS Only.

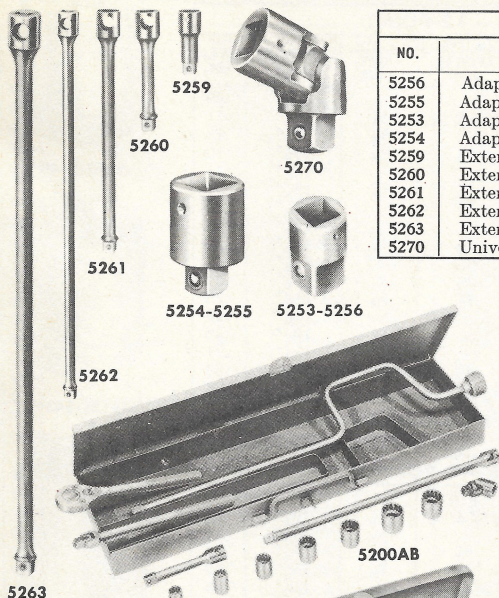


Popular crow-foot wrenches reach starters and do other jobs that normally require special tools.



4912-4944

3/8" SQ. DRIVE CUB SOCKET WRENCH ATTACHMENTS AND SETS



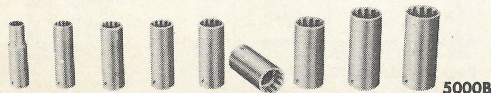
No. 5200C Set

A useful, low-cost set with three popular 8-point and seven 12-point sockets.

NO.	DESCRIPTION
5212	Socket, 12-Pt., 3/8" Op.
5212S	Socket, 8-Pt., 3/8" Op.
5214	Socket, 12-Pt., 7/16" Op.
5214S	Socket, 8-Pt., 7/16" Op.
5216	Socket, 12-Pt., 1/2" Op.
5216S	Socket, 8-Pt., 1/2" Op.
5218	Socket, 12-Pt., 9/16" Op.

NO.	DESCRIPTION
5220	Socket, 12-Pt., 5/8" Op.
5222	Socket, 12-Pt., 1 1/16" Op.
5224	Socket, 12-Pt., 3/4" Op.
5265	Hinge Handle, 7 3/8" Long
5266PH	Pin Handle, 7 1/4" Long
5294	Box, 10 1/4" x 2 1/4" x 1 1/4"

Weight, 2.0 Lbs.



5000B

ATTACHMENTS

NO.	DESCRIPTION	LENGTH	WT., LBS.
5256	Adapter, 1/4" Female, 3/8" Male	1 5/16"	.03
5255	Adapter, 3/8" Female, 1/4" Male	1 5/16"	.03
5253	Adapter, 3/8" Female, 1/2" Male	1 3/4"	.07
5254	Adapter, 1/2" Female, 3/8" Male	1 5/16"	.10
5259	Extension	1 3/4"	.06
5260	Extension, with Pin Handle Hole	3 1/2"	.14
5261	Extension, with Pin Handle Hole	7 1/2"	.27
5262	Extension, with Pin Handle Hole	12"	.41
5263	Extension, with Pin Handle Hole	17"	.55
5270	Universal Joint	1 5/8"	.10

No. 5200AB Set

Containing seven sockets, three handles, two extensions and a universal joint, this expanded set will handle practically all 3/8" drive socket wrench jobs.

Contents

NO.	DESCRIPTION
5212	Socket, 12-Point, 3/8" Opening
5214	Socket, 12-Point, 7/16" Opening
5216	Socket, 12-Point, 1/2" Opening
5218	Socket, 12-Point, 9/16" Opening
5220	Socket, 12-Point, 5/8" Opening
5222	Socket, 12-Point, 1 1/16" Opening
5224	Socket, 12-Point, 3/4" Opening
5249	Reversible Ratchet, 7" Long
5260	Extension, 3 1/2" Long
5262	Extension, 12" Long
5265	Hinge Handle, 7 3/8" Long
5270	Universal Joint
5280	Speed Handle, 16 1/2" Long
5295	Steel Box, 1 1/2" x 5 1/4" x 18 1/2"

Weight, 5.4 Lbs.

No. 5200AA Set

Same as Set No. 5200AB, except in cardboard box instead of No. 5295 steel box. Weight, 2.8 Lbs.

No. 5000B Deep Socket Set

Includes the following nine extra deep 12-point sockets, packed in cardboard box.

NO.	OPENING SIZE	NO.	OPENING SIZE
5012	3/8"	5022	1 1/16"
5014	7/16"	5024	3/4"
5016	1/2"	5026	13/16"
5018	9/16"	5028	7/8"
5020	5/8"	Weight, 1.70 Lbs.	

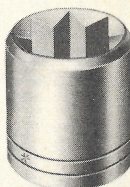
1/2" SQUARE DRIVE STANDARD SOCKET WRENCHES

★ REGULAR SOCKETS — 12-POINT

NO.	OPENING SIZE	AM. STD. HEAVY & USS	AM. STD. REGULAR BOLTHEADS	AM. STD. REGULAR NUTS	AM. STD. LIGHT & SAE	OVERALL LENGTH	WT. LBS.
5412	3/8"	---	---	---	---	1 3/8"	.09
5414	7/16"	---	---	#12 & 1/4	1/4"	1 3/8"	.11
5416	1/2"	1/4(B)	5/16	---	5/16	1 3/8"	.18
5418	9/16"	---	3/8	5/16	3/8	1 3/8"	.10
5419	19/32"	5/16(B)	---	---	---	1 3/8"	.11
5420	5/8"	---	7/16	3/8	7/16	1 3/8"	.11
5421	21/32"	---	---	---	---	1 3/8"	.13
5422	11/16"	3/8(B)	---	---	---	1 3/8"	.13
5424	3/4"	---	1/2	7/16	1/2	1 3/8"	.17
5425	25/32"	7/16(B)	---	---	---	1 3/8"	.18
5426	13/16"	---	---	1/2	---	1 3/8"	.21
5428	7/8"	1/2	9/16	9/16	9/16	1 1/2"	.25
5429	29/32"	---	---	---	---	1 1/2"	.29
5430	15/16"	9/16(C)	5/8	---	5/8	1 1/2"	.36
5431	31/32"	9/16(A)	---	---	---	1 1/2"	.31
5432	1"	---	---	5/8	---	1 1/2"	.35
5434	1 1/16"	5/8	---	---	3/4	1 1/2"	.38
5436	1 1/8"	---	3/4	3/4	---	1 3/4"	.48
5438	1 3/16"	---	---	---	---	1 3/4"	.48
5440	1 1/4"	3/4	---	---	7/8	1 3/4"	.58



5412-5440



5412S-5434S

★ REGULAR SOCKETS — 8-POINT

5412S	3/8"	---	1/4	#10	---	1 3/8"	.06
5414S	7/16"	---	---	#12 & 1/4	1/4"	1 3/8"	.12
5416S	1/2"	1/4(B)	5/16	---	5/16	1 3/8"	.12
5418S	9/16"	---	3/8	5/16	3/8	1 3/8"	.14
5420S	5/8"	---	7/16	3/8	7/16	1 3/8"	.19
5422S	11/16"	3/8(B)	---	---	---	1 1/2"	.28
5424S	3/4"	---	1/2	7/16	1/2	1 1/2"	.31
5426S	13/16"	---	---	1/2	---	1 1/2"	.37
5428S	7/8"	1/2	9/16	9/16	9/16	1 3/4"	.52
5432S	1"	5/8	---	5/8	---	1 3/4"	.74
5434S	1 1/16"	5/8	---	---	3/4	2"	.82



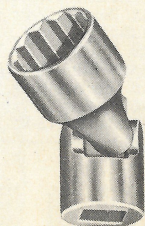
5340-5353

★ EXTRA DEEP SOCKETS — 12-POINT

5340	1 1/2"	1/4(B)	5/16	---	5/16	3 1/4"	.25
5341	9/16"	---	3/8	5/8	3/8	3 1/4"	.24
5343	5/8"	---	7/16	3/8	7/16	3 1/4"	.25
5344	11/16"	3/8(B)	---	---	---	3 1/4"	.30
5345	3/4"	---	1/2	7/16	1/2	3 1/4"	.34
5347	13/16"	---	---	1/2	---	3 1/4"	.34
5348	7/8"	1/2	9/16	9/16	9/16	3 1/4"	.48
5349	15/16"	9/16(C)	5/8	5/8	5/8	3 1/4"	.52
5351	1"	---	---	5/8	---	3 1/4"	.55
5352	1 1/16"	5/8	---	---	3/4	3 1/4"	.71
5353	1 1/8"	---	3/4	3/4	---	3 1/4"	.76

★ UNIVERSAL SOCKETS — 12-POINT

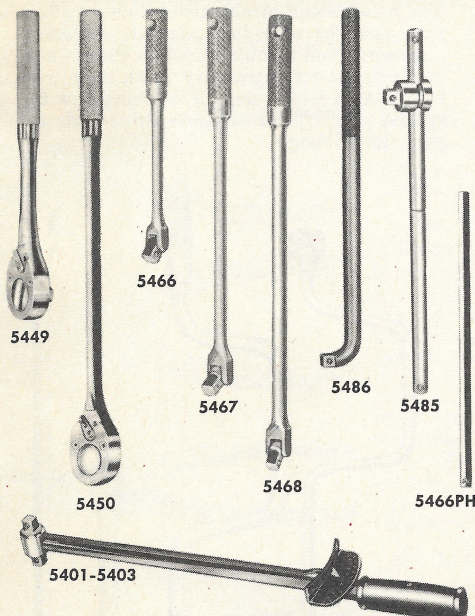
5475	1 1/2"	1/4(B)	5/16	---	5/16	1 25/32"	.16
5476	9/16"	---	3/8	5/16	3/8	1 27/32"	.14
5477	5/8"	---	7/16	3/8	7/16	2"	.17



5475-5477

(A) USS Only. (B) Am. Std. Heavy Nuts & USS Only. (C) Am. Std. Heavy Only. Screwdriver sockets for 1/2" drive are listed on Page 28 and special thin nose sockets on Page 49. ★ For Heavy-Duty 6-Point (Single Hex.) Sockets, see Pages 18-20.

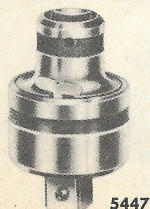
1/2" SQUARE DRIVE STANDARD SOCKET WRENCH HANDLES AND TORKERS



Torque Wrenches

Initially and permanently accurate. Sturdy riveted and welded construction. Unaffected by dirt, oil or grease. Features include two 1/2" drive squares, two dials, compact head, and load-distributing tapered beam.

NO.	FT.-LBS.	LENGTH	HANDLE LENGTH	WT., LBS.
5401	50	15 1/16"	37 8/8"	1.25
5402	100	19 3/16"	37 3/8"	2.1
5403	150	19 3/16"	37 3/8"	2.2



No. 5447 "Ratchet" Ratcheting Attachment

Converts any 1/2" drive non-ratcheting handle or attachment into a ratcheting device. Used mainly with a hinge handle, hinge handle plus extension, speed handle or torque wrench. A simple, positive device, huskily built for high torque strength yet compact for

No. 5449 Reversible Ratchet

Strong, light, thin and free of trouble. Reversible at flip of lever. Length, 10 1/4". Weight, 1.20 Lbs.

No. 5450 Reversible Ratchet

Extra long to give added leverage. Length, 16". Weight, 1.60 Lbs.

Parts for Ratchets 5449 and 5450

5449C Cover 5449R Reversing Assembly
5449DL Dog, Left 5449S Spring
5449DR Dog, Right 5449W Wheel with Plug

Hinge Handles

Three for you to choose from. All upset knurled handles, drilled with pin hole. Slender shanks for lightness and balance.

5466 Length, 10". Weight, .96 Lb.
5467 Length, 15". Weight, 1.45 Lbs.
5468 Length, 18". Weight, 1.62 Lbs.

No. 5300PH Pin Handle

For deep sockets. Length, 8". Stock, 3/8". Weight, .35 Lb.

No. 5466PH Pin Handle

A handy little bar to be used with any extension or hinge handle with pin hole. Length, 11 1/2". Stock, 3/8". Weight, .38 Lb.

No. 5485 Sliding Bar Handle

Friction ball holds plug in any position. Used as a tee or offset handle. Length, 13". Weight, 1.13 Lbs.

No. 5486 Ell Handle

Where real leverage is required the ell handle is tops. Length, 14". Weight, 1.38 Lbs.

ample clearance. Has very little backdrag. Ratchet has 34 teeth, providing positive engagement every 10 1/2 degrees. Reversing lever acts directly on pawl, eliminating separate cam mechanism and possible misalignment or malfunction. Weight, .63 Lb.

1/2" SQUARE DRIVE STANDARD SOCKET WRENCH HANDLES AND ATTACHMENTS

No. 5469 Speed Hinge Handle

Combines the features of a speeder and a hinge handle. Ball-bearing knurled grip. Diameter of swing, 7". Length, 17". Stock, $\frac{3}{16}$ ". Weight, 1.80 Lbs.

No. 5480 Speed Handle

Nothing finer for the speedy running on or off of nuts. Ball-bearing knurled grip. Diameter of swing, 8". Length, 18". Stock, $\frac{1}{2}$ ". Weight, 1.52 Lbs.

Extensions

Provide necessary clearance for socket wrench handles on many jobs and thereby increase their usefulness. All have a hole for turning with pin handle, except 5460.

5460 Length, 21 $\frac{1}{2}$ ". Weight, .20 Lb.

5461 Length, 5". Weight, .36 Lb.

5463 Length, 10". Weight, .64 Lb.

5464 Length, 18". Weight, 1.07 Lbs.

No. 5470 Universal Joint

Makes your job easier when working at a difficult angle. Has $\frac{1}{2}$ " square drive male and female connections. Length, 2 $\frac{1}{4}$ ". Weight, .16 Lb.

Screwdriver Sockets

For use on drag links and on any large slotted screws. Can be turned by most $\frac{1}{2}$ " drive handles and attachments.

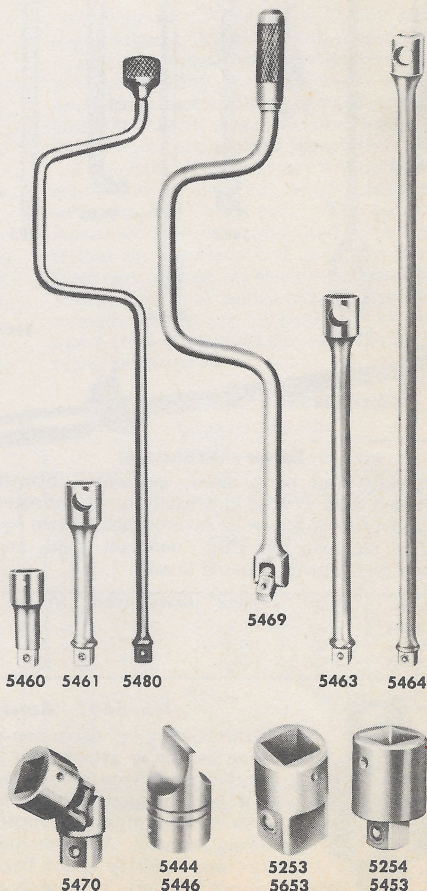
NO.	BIT SIZE	LENGTH	WT., LBS.
5444	$\frac{3}{4}$ " x .125"	1 $\frac{1}{16}$ "	.13
5446	$\frac{15}{16}$ " x .125"	1 $\frac{1}{16}$ "	.17

Adapters

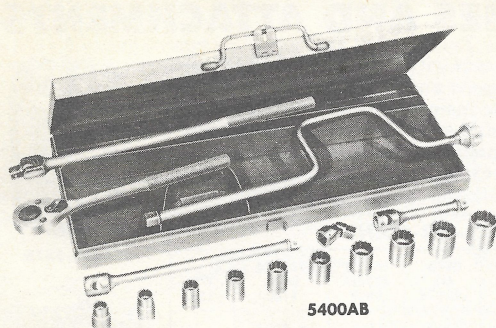
Permit the turning of $\frac{1}{2}$ " square drive socket wrenches with $\frac{3}{8}$ " and $\frac{3}{4}$ " drive handles and attachments. Also allow use of $\frac{1}{2}$ " drive handles and attachments for turning $\frac{3}{8}$ " and $\frac{3}{4}$ " socket wrenches.

NO.	DESCRIPTION	LENGTH	WT., LBS.
5253	$\frac{3}{8}$ " Female, $\frac{1}{2}$ " Male	1 $\frac{3}{32}$ "	.07
5254	$\frac{1}{2}$ " Female, $\frac{3}{8}$ " Male	1 $\frac{3}{16}$ "	.10
5653	$\frac{1}{2}$ " Female, $\frac{3}{4}$ " Male	1 $\frac{1}{2}$ "	.22
5453	$\frac{3}{4}$ " Female, $\frac{1}{2}$ " Male	1 $\frac{7}{8}$ "	.40

The handles and attachments shown on this page and the preceding page are designed, engineered and manufactured for precise and complete interchangeability. With them, you can make a wide range of combinations for special jobs. Their accurate drive ends insure close fitting.

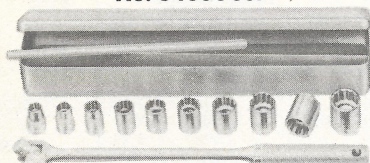


1/2" SQ. DRIVE SOCKET WRENCH SETS



5400AB

No. 5400C Set

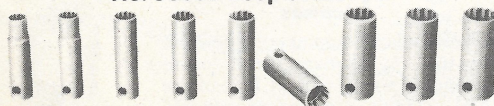


A high-utility, low-cost set with 13 items:

NO.	DESCRIPTION
5414	Socket, 7/16" Op.
5416	Socket, 1/2" Op.
5418	Socket, 9/16" Op.
5420	Socket, 5/8" Op.
5422	Socket, 11/16" Op.
5424	Socket, 3/4" Op.
5426	Socket, 13/16" Op.

NO.	DESCRIPTION
5428	Socket, 7/8" Op.
5430	Socket, 15/16" Op.
5432	Socket, 1" Op.
5466PH	Pin Handle, 11 1/2" Long
5467	Hinge Handle, 15" Long
5494	Steel Box, 17"x3"x2"
Weight, 3.5 Lbs.	

No. 5300B Deep Socket Set



Includes nine 1/2" drive 12-point deep sockets—Nos. 5340, 5341, 5343, 5344, 5345, 5347, 5348, 5349 and 5351—with openings of 1/2", 5/8", 3/4", 13/16", 7/8", 15/16" and 1". Packed in cardboard box. Weight, 3.4 Lbs.

No. 5300E Spark Plug Socket Set

No. 5300PH pin handle and six deep sockets—Nos. 5343, 5344, 5347, 5348, 5349 and 5351—with openings of 5/8", 11/16", 13/16", 7/8", 15/16" and 1". Packed in cardboard box. Weight, 2.8 Lbs.

No. 5400AB Set

A popular set, containing 17 items:

NO.	DESCRIPTION
5414	Socket, 12-Point, 7/16" Opening
5416	Socket, 12-Point, 1/2" Opening
5418	Socket, 12-Point, 9/16" Opening
5420	Socket, 12-Point, 5/8" Opening
5422	Socket, 12-Point, 11/16" Opening
5424	Socket, 12-Point, 3/4" Opening
5426	Socket, 12-Point, 13/16" Opening
5428	Socket, 12-Point, 7/8" Opening
5430	Socket, 12-Point, 15/16" Opening
5432	Socket, 12-Point, 1" Opening
5449	Reversible Ratchet, 10 1/4" Long
5461	Extension, 5" Long
5463	Extension, 10" Long
5467	Hinge Handle, 15" Long
5470	Universal Joint
5480	Speed Handle, 18" Long
5495	Steel Box, 1 3/4"x8 1/4"x19 1/2"
Weight, 13 Lbs.	

No. 5400AA Set

Same as Set No. 5400AB except in cardboard box instead of No. 5495 steel box. Weight, 7.5 Lbs.

No. 5400-OC Set

A complete 27-item "Super Set":

NO.	DESCRIPTION
5414	Socket, 12-Point, 7/16" Opening
5416	Socket, 12-Point, 1/2" Opening
5418	Socket, 12-Point, 9/16" Opening
5419	Socket, 12-Point, 5/8" Opening
5420	Socket, 12-Point, 11/16" Opening
5421	Socket, 12-Point, 3/4" Opening
5422	Socket, 12-Point, 13/16" Opening
5424	Socket, 12-Point, 7/8" Opening
5425	Socket, 12-Point, 15/16" Opening
5426	Socket, 12-Point, 1" Opening
5428	Socket, 12-Point, 1 1/8" Opening
5430	Socket, 12-Point, 1 1/4" Opening
5431	Socket, 12-Point, 1 1/2" Opening
5432	Socket, 12-Point, 1 3/4" Opening
5434	Socket, 12-Point, 1 7/8" Opening
5436	Socket, 12-Point, 2" Opening
5438	Socket, 12-Point, 2 1/4" Opening
5440	Socket, 12-Point, 2 1/2" Opening
5449	Reversible Ratchet, 10 1/4" Long
5460	Extension, 2 1/2" Long
5461	Extension, 5" Long
5463	Extension, 10" Long
5466PH	Pin Handle, 11 1/2" Long
5468	Hinge Handle, 18" Long
5470	Universal Joint
5480	Speed Handle, 18" Long
5495	Steel Box, 1 3/4"x8 1/4"x19 1/2"
Weight, 15 Lbs.	

3/4" SQUARE DRIVE HEAVY-DUTY SOCKET WRENCHES AND ATTACHMENTS

These sturdy tools are standard equipment with mechanics and industrial workers who need strength, power, speed and safe operation on really tough jobs. They are essential for the maintenance and installation of heavy machinery and for the repair of trucks, buses, automobiles, tractors and farm implements. An outstanding feature of these sockets, which saves time and money, is their extra length.

★ REGULAR SOCKETS — 12-POINT

NO.	NOMINAL OPENING SIZE	AM. STD. HEAVY & USS	AM. STD. REGULAR	AM. STD. LIGHT & SAE	OVER-ALL LENGTH	INSIDE CLEAR-ANCE	OUTSIDE DIAM-ETER	WT., LBS.
5528	7/8"	1/2	9/16	9/16	1 3/4"	1"	1.276"	.31
5530	15/16"	5/16 (C)	5/8 (D)	5/8	1 3/4"	1"	1.370"	.38
5532	1"	5/8	5/8 (E)	5/8	2"	1 1/4"	1.432"	.46
5534	1 1/16"	5/8	---	3/4	2"	1 1/4"	1.495"	.52
5536	1 1/8"	---	3/4	---	2 1/8"	1 1/8"	1.557"	.63
5538	1 1/4"	---	---	---	2 1/8"	1 1/8"	1.620"	.66
5540	1 1/2"	3/4	---	7/8	2 1/8"	1 1/8"	1.682"	.73
5542	1 5/8"	---	7/8	---	2 1/2"	1 3/4"	1.870"	1.03
5544	1 3/4"	---	---	---	2 5/8"	1 7/8"	1.932"	1.17
5546	1 7/8"	7/8	---	1	2 5/8"	1 7/8"	1.995"	1.24
5548	1 1/2"	---	1	---	3 1/2"	2 3/4"	2.057"	1.66
5550	1 5/8"	---	---	---	3 1/2"	2 3/4"	2.120"	1.75
5552	1 5/8"	1	---	1 1/8	3 1/2"	2 3/4"	2.245"	2.0
5554	1 11/16"	---	1 1/8	---	3 1/2"	2 3/4"	2.370"	2.3
5556	1 3/4"	---	---	---	3 1/2"	2 3/4"	2.370"	2.2
5558	1 13/16"	1 1/8	---	1 1/4	3 1/2"	2 3/4"	2.495"	2.6
5560	1 7/8"	---	1 1/4	---	3 1/2"	2 3/4"	2.557"	2.6
5564	2"	1 1/4	---	1 3/8	3 1/2"	2 3/4"	2.745"	3.1
5568	2 1/8"	---	---	---	3 1/2"	2 3/4"	2.932"	3.6
5572	2 1/4"	---	1 1/2	---	3 13/16"	3 1/16"	3.120"	3.8
5576	2 3/8"	1 1/2	---	---	3 15/16"	3 1/8"	3.250"	3.8

(C) Am. Std. Heavy Only. (D) Boltheads Only. (E) Nuts Only.

★ For Heavy-Duty 6-Point (Single Hex.) Sockets, see Pages 18-20.

No. 5526S Socket

Special 4-point (single square) socket with 13/16" opening. Fits all Budd dual wheels and Lambert spacers as used on many truck models, and Budd dual wheel inner nut on 1935-1948 Dodge 1 1/2" and 2-ton and 1931-1948 Ford 1 1/2-ton trucks. Length, 2". Inside clearance, 1 1/16". Outside diameter, 1.593". Weight, .65 Lb.

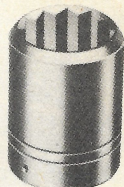
Adapters

These adapters make it possible to turn 3/4" square drive socket wrenches with 1/2" and 1" handles and attachments, and to use 3/4" drive handles and attachments for turning 1/2" and 1" drive socket wrenches.

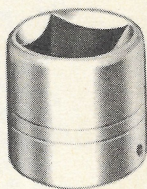
NO.	FEMALE OPENING	MALE DRIVE	LENGTH	WT., LBS.
5653	1/2"	3/4"	1 1/2"	.22
5453	3/4"	1 1/2"	1 7/8"	.40
5853	3/4"	1"	2 1/4"	.72
5854	1"	3/4"	2 1/16"	1.34

No. 5670 Universal Joint

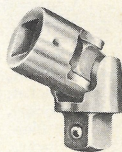
3/4" male and female connections. Length, 3 3/16". Weight, .96 Lb.



5528-5576



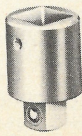
5526S



5670

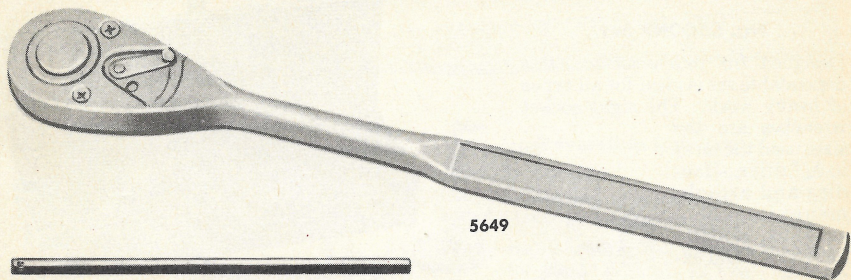


5653 & 5853



5453 & 5854

3/4" SQ. DRIVE HEAVY-DUTY SOCKET WRENCH HANDLES AND ATTACHMENTS



5649



5668PH

No. 5649 Reversible Ratchet

Very strong for hard pulls. Precision made. Length, 20". Weight, 5.1 Lbs.

Parts for Ratchet 5649

5649C	Cover	5649R	Reversing Assembly
5649DL	Dog, Left		
5649DR	Dog, Right	5649S	Spring
5649H	Cover Screw	5649W	Wheel with Plug

No. 5668 Hinge Handle

Hinged plug operates at any angle and is held firmly in position by friction ball. Length, 22". Weight, 4.8 Lbs.

No. 5668PH Pin Handle

Stock, 1/2". Length, 12". Weight, .62 Lb.

No. 5685 Sliding Bar Handle

Friction ball in plug holds it at any point on 3/16" diameter bar. Length, 18". Weight, 3.3 Lbs.

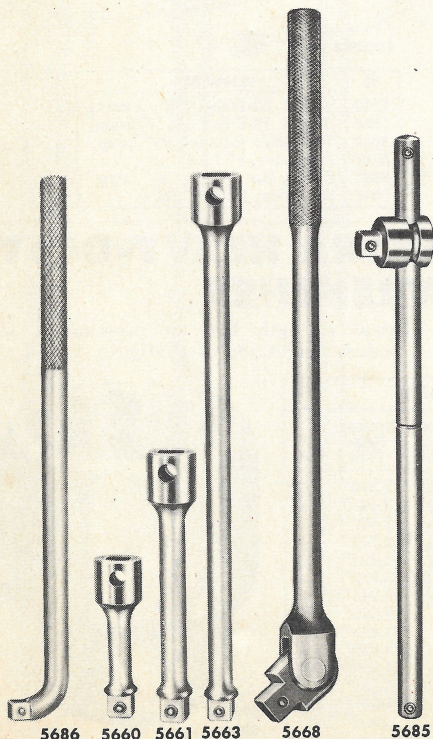
No. 5686 Ell Handle

A very handy tool that gives powerful leverage. Deeply knurled grip. Length, 17 1/4". Weight, 4.2 Lbs.

Extensions

Have hole for turning with pin handle.

5660	Length, 5".	Weight, .92 Lb.
5661	Length, 8".	Weight, 1.35 Lbs.
5663	Length, 16".	Weight, 2.3 Lbs.



5686

5660

5661

5663

5668

5685

3/4" SQUARE DRIVE HEAVY-DUTY SOCKET WRENCH SET

No. 5500NR Set

Designed for tough service, this dependable set is ideal for all types of heavy work. The eight socket wrenches are the sizes used the most in 3/4" drive. Handles and attachments include a ratchet, sliding bar handle and extension.

Weight, 29 Lbs.



Contents

NO.	DESCRIPTION
5534	Socket, 12-Point, 1 1/16" Opening
5536	Socket, 12-Point, 1 1/8" Opening
5540	Socket, 12-Point, 1 1/4" Opening
5542	Socket, 12-Point, 1 3/8" Opening
5546	Socket, 12-Point, 1 1/2" Opening
5548	Socket, 12-Point, 1 5/8" Opening

5500NR

NO.	DESCRIPTION
5552	Socket, 12-Point, 1 5/8" Opening
5556	Socket, 12-Point, 1 3/4" Opening
5649	Reversible Ratchet, 20" Long
5661	Extension, 8" Long
5685	Sliding Bar Handle, 18" Long
5695	Steel Box, 3 3/4" x 8" x 2 1/2"

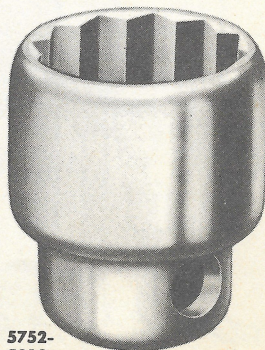
1" SQUARE DRIVE EXTRA HEAVY-DUTY SOCKET WRENCHES

You need these huskies for extra tough, heavy-duty work. They are designed for

great strength, but are streamlined to reduce weight and user fatigue.

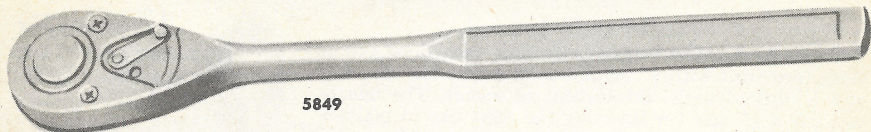
REGULAR SOCKETS — 12-POINT

NO.	NOMINAL OPENING SIZE	AM. STD. HEAVY & USS	AM. STD. REGULAR	AM. STD. LIGHT & SAE	OVER-ALL LENGTH	INSIDE CLEAR-ANCE	OUTSIDE DIAM-ETER	WT., LBS.
5752	1 5/8"	1	---	1 1/8"	3 1/4"	2 1/4"	2.370"	1.73
5758	1 11/16"	1 1/8"	---	1 1/4"	3 5/16"	2 5/16"	2.495"	1.84
5760	1 7/8"	---	1 1/4"	---	3 3/8"	2 3/8"	2.557"	2.0
5764	2"	1 1/4"	---	1 5/8"	3 7/16"	2 7/16"	2.745"	2.3
5770	2 1/8"	1 3/8"	---	1 1/2"	3 3/4"	2 3/4"	2.995"	3.2
5772	2 1/4"	---	1 1/2"	---	3 11/16"	2 11/16"	3.120"	3.4
5776	2 5/8"	1 1/2"	---	---	3 15/16"	2 15/16"	3.245"	3.7
5780	2 1/2"	---	---	---	4"	3"	3.495"	4.6
5782	2 9/16"	1 5/8"	---	---	4"	3"	3.495"	4.6
5784	2 5/8"	---	1 3/4"	---	4 1/8"	3 1/8"	3.620"	5.1
5788	2 3/4"	1 3/4"	---	---	4 3/8"	3 3/8"	3.807"	6.4
5794	2 9/16"	1 7/8"	---	---	4 3/8"	3 3/8"	4.057"	7.4
5800	3 1/8"	2	---	---	4 7/8"	3 7/8"	4.307"	9.4
5812	3 1/2"	2 1/4"	---	---	5 1/2"	4 1/2"	4.932"	14



5752-5812

1" SQUARE DRIVE EXTRA HEAVY-DUTY SOCKET WRENCH HANDLES



5849

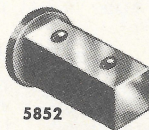
Reversible Ratchets

The "Big Berthas" of all ratchets. Made extra strong for powerful pulls at high speed. Overall length, 26".

5849—Ratchet complete with male adapter plug. Weight, 12 Lbs.

5848—Ratchet with 1" square female wheel. Weight, 11 Lbs.

No. 5852 Adapter Plug



5852

1" square male plug for converting No. 5848 ratchet to No. 5849 ratchet. Weight, .72 Lb.

Parts for Ratchet 5848

5848C	Cover	5848R	Reversing
5848DL	Dog, Left		Assembly
5848DR	Dog, Right	5848S	Spring
5848H	Cover Screw	5848W	Female Wheel

No. 5868 Hinge Handle

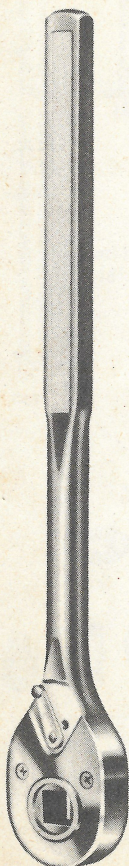
You will find this the handiest tool for nut turning you ever used. 1" male connection. Length, 26". Weight, 9.0 Lbs.

No. 5884 1" Bar

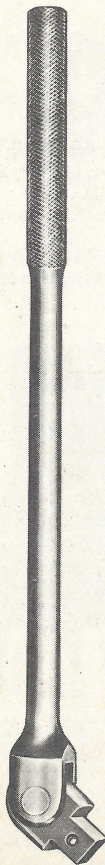
This handy bar is used to turn the big 1" drive sockets which are drilled with a hole for the bar. It also can be used as a handle to make a tee drive with extensions. Has ball stop on one end. Length, 24". Weight, 5.3 Lbs.

No. 5885 Sliding Plug

Used with No. 5884 bar as a sliding bar handle. Has friction ball to hold it firmly at any point on bar. Weight, 1.38 Lbs.



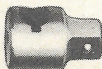
5848



5868



5884



5885

1" SQUARE DRIVE EXTRA HEAVY-DUTY SOCKET WRENCH ATTACHMENTS & SET

Extensions

Hard-to-reach places become accessible with these extensions, provided with 1" square connections for use with any 1" drive handle, attachment or socket. The female end has a 1" hole for inserting the 5884 bar to make a tee-type handle.

5861—Length, 8". Weight, 2.5 Lbs.

5863—Length, 17". Weight, 4.5 Lbs.

Adapters

With these adapters you can turn 1" drive sockets with any $\frac{3}{4}$ " drive handle or attachment, and use 1" drive handles and attachments to turn $\frac{3}{4}$ " drive sockets.

5853— $\frac{3}{4}$ " Female, 1" Male. Weight, .72 Lb.

5854—1" Female, $\frac{3}{4}$ " Male. Weight, 1.34 Lbs.



5853



5854



5861



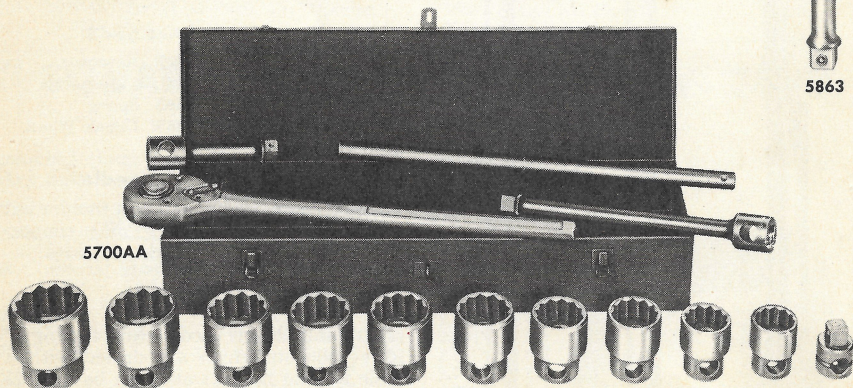
5863

No. 5700AA Set

An ideal set for really tough jobs that demand extra sturdy tools. It is serviceable and complete, including a ratchet,

two extensions, bar, drive plug and ten socket wrenches in a heavy-gauge metal box. Weight, 80 Lbs.

5700AA



NO.	DESCRIPTION
5760	Socket, 12-Point, $1\frac{1}{8}$ " Opening
5764	Socket, 12-Point, 2" Opening
5770	Socket, 12-Point, $2\frac{3}{16}$ " Opening
5772	Socket, 12-Point, $2\frac{1}{4}$ " Opening
5776	Socket, 12-Point, $2\frac{3}{8}$ " Opening
5780	Socket, 12-Point, $2\frac{1}{2}$ " Opening
5782	Socket, 12-Point, $2\frac{9}{16}$ " Opening
5784	Socket, 12-Point, $2\frac{5}{8}$ " Opening

NO.	DESCRIPTION
5788	Socket, 12-Point, $2\frac{3}{4}$ " Opening
5794	Socket, 12-Point, $2\frac{15}{16}$ " Opening
5849	Reversible Ratchet, 26" Long
5861	Extension, 8" Long
5863	Extension, 17" Long
5884	Bar Handle, 24" Long
5885	Drive Plug for 5884 Bar
5894	Steel Box, 5"x8 $\frac{1}{4}$ "x30"

PLIERS

Among the many styles and sizes of pliers available in the extensive Proto Tool line, you can find the right ones for any job. And you are assured of getting high quality.

Skilled workmen, with the aid of modern equipment, forge and machine these pliers to high standards. Long life is insured by their sturdy construction and by the use of fine high-grade steels.

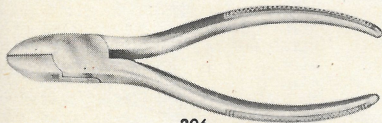
When you examine these pliers you will find many superior features—the result of years of experience in plier design. They are easy to work. They have good balance—good “feel.” They have correct leverage. Gripping teeth are shaped properly. Sharp cutting edges are perfectly matched and built to withstand hard use. Patterned handles are shaped to fit the hand, giving a sure grip.



201-202



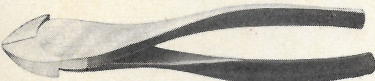
203



206



207



209

Nos. 201 & 202 Thin Nose Combination Pliers

Designed with a slim nose to reach into tight places. Have two jaw-opening adjustments and shear-type wire cutter. Handy for all automobile owners and mechanics. Two sizes.

NO.	LENGTH	WEIGHT
201	5"	.25 Lb.
202	6"	.35 Lb.

No. 203 Thin Bent Nose Combination Plier

Made with 30° offset thin nose which reaches into many places inaccessible with straight nose pliers. Handy for pulling small nails and staples. Very useful around home. Has two jaw-opening adjustments and wire cutter of shear type. Length, 7". Weight, .43 Lb.

Nos. 206 & 207 Diagonal Cutting Pliers

Thin, narrow jaws work easily in congested places. Sharp cutting edges are perfectly matched and withstand hard usage. Useful for switchboard, telephone, ignition and other electrical work.

NO.	LENGTH	WEIGHT
206	6"	.37 Lb.
207	7"	.54 Lb.

No. 209 Heavy-Duty Diagonal Cutting Plier

A powerful cutting plier, designed with the box joint close to the short jaws to provide great leverage. Cuts heavy wire with little effort. Sharp cutting edges are perfectly matched. Every mechanic needs this plier. Length, 7". Weight, .49 Lb.

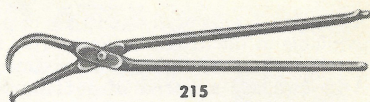
Spare Parts for Pliers

NO.	NET PRICE	DESCRIPTION	NO.	NET PRICE	DESCRIPTION	NO.	NET PRICE	DESCRIPTION
201B	.03	Bolt and Nut for 201 and 275	235B	.12	Rivet and Washer for 235	241B	.07	Bolt and Nut for 241
202B	.03	Bolt and Nut for 202, 203, 236, 276 and 278	238B	.03	Bolt and Nut for 238	246B	.03	Bolt and Nut for 246 and 257
			240B	.20	Bolt and Nut for 240	280B	.07	Bolt and Nut for 280

PLIERS

No. 215 Brake Spring Plier

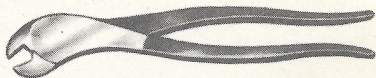
Curved jaw clears edge of brake shoe to bring it in close adjustment with center line of spring. Thin hooked jaw slips easily under spring. A necessary plier for auto mechanics. Length, 12". Weight, .71 Lb.



215

No. 218 Angle Nose Battery Plier

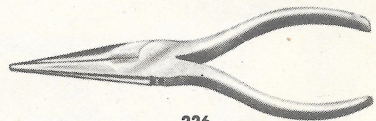
Thin jaws at 30° angle make terminal nuts easily accessible. No matter what condition the nuts or bolts are in, the gripping jaws take a sure hold. Length, 8". Weight, .49 Lb.



218

No. 226 Needle Nose Side Cutting Plier

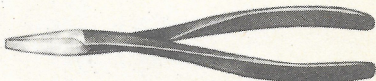
The long thin nose and the strong, sharp side cutters make an ideal combination for radio, telephone and other electrical work. A good plier for any job where a long reach and a sure grip are required. Length, 6". Weight, .28 Lb.



226

No. 227 Duck Bill Plier

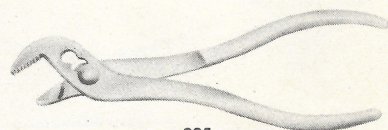
A useful plier for carburetor, radio, refrigerator, electrical typewriter, office machine and many other types of work. Long handles provide powerful leverage. Length, 8". Weight, .44 Lb.



227

No. 235 Slip Joint Ignition Plier

Designed for ignition work but has many other uses where narrow jaws are needed. Light and convenient to use. Three jaw-opening adjustments allow parallel openings up to $\frac{3}{8}$ ". Length, $4\frac{1}{2}$ ". Weight, .07 Lb.

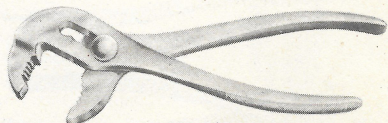


235

Nos. 236 & 238 Parrot Nose Wrench Pliers

Combination plier and pipe wrench design, with 75° offset nose and four jaw-opening adjustments. Ideal for a multitude of uses. Especially popular with plumbers and general mechanics on small pipe and tubing work. Noted for great gripping power. Two sizes.

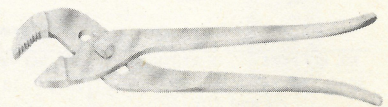
NO.	LENGTH	WEIGHT
236	6"	.41 Lb.
238	$7\frac{1}{2}$ "	.61 Lb.



236-238

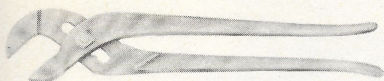
No. 240 Heavy-Duty Water Pump Plier

An all-purpose plier, with five jaw-opening adjustments. Can be applied to almost any job requiring a plier or pipe wrench. Has a large radius in the movable jaw to secure a better grip in all positions. For heavy-duty work. Length, $9\frac{1}{2}$ ". Weight, .62 Lb.



240

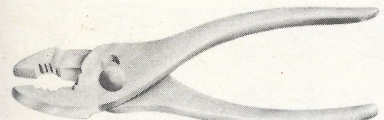
PLIERS



241

No. 241 Light-Duty Water Pump Plier

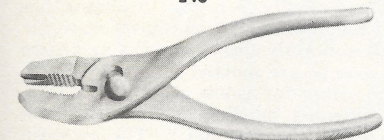
Like No. 240 but lighter and with five jaw-opening adjustments. Teeth are shaped as in a pipe wrench, insuring positive grip on round objects. Only $\frac{3}{8}$ " thick, but very strong. Length, $9\frac{1}{2}$ ". Weight, .58 Lb.



246

No. 246 Comb. Slip Joint Side Cutting Plier

A well-made plier that cuts most wire and nails with ease. Has two jaw-opening adjustments. Length, 6". Weight, .49 Lb.



257

No. 257 Heavy-Duty Universal Plier

A husky plier of outstanding design. One jaw is curved, giving firm grip on objects of almost any shape. Other jaw is grooved for gripping wire or any round surface. Has a shear-type wire cutter and two jaw-opening adjustments. Length, 7". Weight, .58 Lb.



258

No. 258 Gas Plier

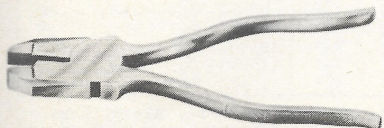
Ideal for refrigeration and diesel mechanics, and others working with studs, tubing and small pipe. Two ranges of tube sizes are handled by arrangement of teeth. Even the jaw ends have lengthwise teeth for gripping tubes. Length, 8". Weight, .75 Lb.



260

No. 260 Long Thin Nose Telephone Plier

Popular for telephone work and for radio installation and repair. Long thin nose gets into tight places. Has powerful shear-type wire cutter. Length, 6". Weight, .25 Lb.

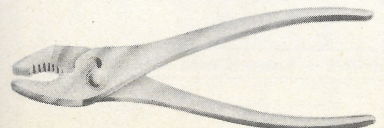


266-268

Nos. 266 & 268 Lineman's Side Cutting Pliers

Designed for utility linemen's work but used also for wiring, and for installation and maintenance of electrical equipment. Useful, too, around filling stations and garages. The sharp edges withstand hard usage. Two sizes.

NO.	LENGTH	WEIGHT
266	6"	.43 Lb.
268	8"	.81 Lb.



275-280

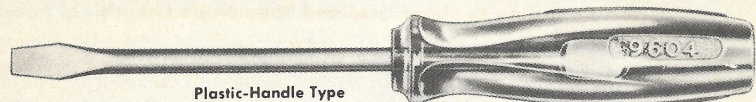
Nos. 275-280 Combination Slip Joint Pliers

Leaders for general utility, design and service. Have two jaw-opening adjustments and a shear-type wire cutter. Four sizes.

NO.	LENGTH	WEIGHT
275	5"	.26 Lb.
276	6"	.41 Lb.
278	8"	.58 Lb.
280	10"	1.00 Lb.



STANDARD SCREWDRIVERS



Plastic-Handle Type



Wood-Handle Type

There are many reasons for the great popularity of these famous screwdrivers. Blades are made from fine alloy steels, conforming to rigid specifications, and are scientifically heat treated their full length to give the right degrees of hardness, strength and toughness. Stock is of ample size to give a solid drive. Bits are tapered gradually to provide clearance, and bit sections are accurately ground to insure proper fit.

The revolutionary new plastic handles feature a much-improved plastic and a hand-fitting shape, designed and tested with the help of mechanics. They are rounded and larger through the palm section and smaller where the little finger comes. Flutes and raised markings pre-

vent slippage. There are no "pinch ears," sharp edges, bubbles or weak points.

The new plastic is non-explosive, does not burn readily, is a good insulator, has great toughness and high impact strength, and is uniformly clear. Handles and extra long shanks are molded integrally.

Favorites for years are the octagon-shaped wood handles, which provide a sure grip and "stay put." The seasoned hardwood handle is protected by a metal ferrule on the blade end and by a drawn steel cap (except on electrical types) that stands plenty of punishment. The blade extends to the cap in these screwdrivers and a steel rivet holds the cap, handle and blade as one piece.

PLASTIC-HANDLE SCREWDRIVERS

Round Shank

NO.	SHANK SIZE	BLADE LENGTH	BIT WIDTH	OVERALL LENGTH	WT., LBS.
9604	$\frac{1}{4}$ "	4"	$\frac{9}{32}$ "	8"	.17
9606	$\frac{5}{16}$ "	6"	$\frac{11}{32}$ "	$10\frac{1}{2}$ "	.35
9608	$\frac{3}{8}$ "	8"	$\frac{13}{32}$ "	13"	.52
9622	$\frac{1}{8}$ "	$2\frac{1}{2}$ "	$\frac{1}{8}$ "	$5\frac{1}{4}$ "	.05
9624	$\frac{1}{8}$ "	$4\frac{1}{2}$ "	$\frac{1}{8}$ "	$7\frac{1}{4}$ "	.05
9632	$\frac{3}{16}$ "	4"	$\frac{3}{16}$ "	$7\frac{1}{2}$ "	.10
9633	$\frac{3}{16}$ "	$7\frac{1}{2}$ "	$\frac{3}{16}$ "	11"	.13
9638	$\frac{3}{16}$ "	$13\frac{1}{2}$ "	$\frac{3}{16}$ "	17"	.18
9642	$\frac{1}{4}$ "	9"	$\frac{9}{32}$ "	13"	.25
9643	$\frac{5}{16}$ "	10"	$\frac{11}{32}$ "	$14\frac{1}{2}$ "	.39

Square Shank

9651	$\frac{3}{16}$ "	1"	$\frac{9}{32}$ "	$2\frac{7}{8}$ "	.08
9652	$\frac{1}{4}$ "	$1\frac{1}{2}$ "	$\frac{9}{32}$ "	$3\frac{7}{8}$ "	.14
9804	$\frac{1}{4}$ "	4"	$\frac{9}{32}$ "	8"	.10
9806	$\frac{5}{16}$ "	6"	$\frac{11}{32}$ "	$10\frac{1}{2}$ "	.36
9808	$\frac{3}{8}$ "	8"	$\frac{13}{32}$ "	13"	.58
9822	$\frac{1}{8}$ "	$2\frac{1}{2}$ "	$\frac{1}{8}$ "	$5\frac{1}{4}$ "	.05
9832	$\frac{3}{16}$ "	4"	$\frac{7}{32}$ "	$7\frac{1}{2}$ "	.12
9833	$\frac{3}{16}$ "	$7\frac{1}{2}$ "	$\frac{7}{32}$ "	11"	.15
9842	$\frac{1}{4}$ "	9"	$\frac{9}{32}$ "	13"	.28
9843	$\frac{5}{16}$ "	10"	$\frac{11}{32}$ "	$14\frac{1}{2}$ "	.45

WOOD-HANDLE SCREWDRIVERS

Square Shank

Heavy-Duty — Metal Cap

NO.	SHANK SIZE	BLADE LENGTH	BIT WIDTH	OVERALL LENGTH	WT., LBS.
9701	$\frac{3}{16}$ "	$1\frac{1}{2}$ "	$\frac{7}{32}$ "	$4\frac{1}{4}$ "	.09
9702	$\frac{3}{16}$ "	$2\frac{1}{2}$ "	$\frac{7}{32}$ "	$6\frac{5}{8}$ "	.15
9704	$\frac{1}{4}$ "	4"	$\frac{9}{32}$ "	9"	.29
9706	$\frac{5}{16}$ "	6"	$\frac{11}{32}$ "	$12\frac{1}{8}$ "	.55
9708	$\frac{3}{8}$ "	8"	$\frac{13}{32}$ "	$14\frac{13}{16}$ "	.80
9710	$\frac{3}{8}$ "	10"	$\frac{13}{32}$ "	$16\frac{3}{4}$ "	.92
9712	$\frac{3}{8}$ "	12"	$\frac{13}{32}$ "	$18\frac{3}{4}$ "	1.00
9714	$\frac{7}{16}$ "	14"	$\frac{9}{16}$ "	$22\frac{3}{4}$ "	1.52
9752	$\frac{5}{16}$ "	$1\frac{3}{4}$ "	$\frac{11}{32}$ "	$5\frac{3}{4}$ "	.32

Electrical Type — No Metal Cap

9722	$\frac{1}{8}$ "	$2\frac{1}{2}$ "	$\frac{1}{8}$ "	$5\frac{1}{4}$ "	.06
9724	$\frac{1}{8}$ "	$4\frac{1}{2}$ "	$\frac{1}{8}$ "	$7\frac{1}{4}$ "	.07
9732	$\frac{3}{16}$ "	4"	$\frac{7}{32}$ "	$8\frac{7}{8}$ "	.15
9733	$\frac{3}{16}$ "	$7\frac{1}{2}$ "	$\frac{7}{32}$ "	$12\frac{3}{8}$ "	.18

Cabinet — Long Blade — Metal Cap

9741	$\frac{3}{16}$ "	9"	$\frac{7}{32}$ "	$13\frac{1}{8}$ "	.28
9742	$\frac{1}{4}$ "	$9\frac{1}{2}$ "	$\frac{9}{32}$ "	$14\frac{1}{2}$ "	.19
9743	$\frac{5}{16}$ "	10"	$\frac{11}{32}$ "	$16\frac{1}{8}$ "	.64
9744	$\frac{1}{4}$ "	24"	$\frac{9}{32}$ "	$29\frac{1}{16}$ "	.61

GUIDE FOR SELECTING SCREWDRIVERS

**ALL Plastic-Handle and Wood-Handle Screwdrivers,
Listed According to Shank Size and Then Blade Length**

NO.	SHANK SIZE and SHAPE	BLADE LENGTH	HANDLE MATERIAL	BIT WIDTH or NUMBER	OVERALL LENGTH	TYPE OF SCREWDRIVER	WT., LBS.
9622	1/8" Round	2 1/2"	Plastic	1/8"	5 1/4"	Electrical	.05
9822	1/8" Square	2 1/2"	Plastic	1/8"	5 1/4"	General Purpose	.05
9722	1/8" Square	2 1/2"	Wood	1/8"	5 1/4"	Electrical	.06
9624	1/8" Round	4 1/2"	Plastic	1/8"	7 1/4"	Electrical	.05
9724	1/8" Square	4 1/2"	Wood	1/8"	7 1/4"	Electrical	.07
9651	3/16" Square	1"	Plastic	9/32"	2 7/8"	Stubby	.08
9701	3/16" Square	1 1/2"	Wood	7/32"	4 1/4"	Heavy-Duty—Metal Cap	.09
9702	3/16" Square	2 1/2"	Wood	7/32"	6 5/8"	Heavy-Duty—Metal Cap	.15
9782	3/16" Round	3"	Wood	No. 1	6 1/4"	Phillips No. 1 Bit	.07
9682	3/16" Round	3"	Plastic	No. 1	6 1/2"	Phillips No. 1 Bit	.10
9632	3/16" Round	4"	Plastic	3/16"	7 1/2"	Electrical	.10
9832	3/16" Square	4"	Plastic	7/32"	7 1/2"	General Purpose	.12
9732	3/16" Square	4"	Wood	7/32"	8 7/8"	Electrical	.15
9633	3/16" Round	7 1/2"	Plastic	3/16"	11"	Electrical	.13
9833	3/16" Square	7 1/2"	Plastic	7/32"	11"	General Purpose	.15
9733	3/16" Square	7 1/2"	Wood	7/32"	12 3/8"	Electrical	.18
9741	3/16" Square	9"	Wood	7/32"	13 1/8"	Cabinet—Long Slim Blade	.28
9638	3/16" Round	13 1/2"	Plastic	3/16"	17"	Cabinet—Long Slim Blade	.18
9671	1/4" Round	9/16"	Plastic	No. 2	2 7/16"	Stubby—Phillips No. 2 Bit	.08
9652	1/4" Square	1 1/2"	Plastic	9/32"	3 7/8"	Stubby	.14
9604	1/4" Round	4"	Plastic	9/32"	8"	Standard	.17
9804	1/4" Square	4"	Plastic	9/32"	8"	Standard	.10
9704	1/4" Square	4"	Wood	9/32"	9"	Heavy-Duty—Metal Cap	.29
9684	1/4" Round	4"	Plastic	No. 2	8"	Phillips No. 2 Bit	.18
9784	1/4" Round	4"	Wood	No. 2	8 7/8"	Phillips No. 2 Bit	.17
9642	1/4" Round	9"	Plastic	9/32"	13"	Cabinet—Long Slim Blade	.25
9842	1/4" Square	9"	Plastic	9/32"	13"	Cabinet and General Purpose	.28
9742	1/4" Square	9 1/2"	Wood	9/32"	14 1/2"	Cabinet and General Purpose	.19
9744	1/4" Square	24"	Wood	9/32"	29 1/16"	Long—Reaches Hose Clamps	.61
9752	5/16" Square	1 3/4"	Wood	1 1/32"	5 3/4"	Tappet—Metal Cap	.32
9606	5/16" Round	6"	Plastic	1 1/32"	10 1/2"	Standard	.35
9806	5/16" Square	6"	Plastic	1 1/32"	10 1/2"	Standard	.36
9706	5/16" Square	6"	Wood	1 1/32"	12 7/8"	Heavy-Duty—Metal Cap	.55
9686	5/16" Round	6"	Plastic	No. 3	10 1/2"	Phillips No. 3 Bit	.30
9786	5/16" Round	6"	Wood	No. 3	12"	Phillips No. 3 Bit	.31
9643	5/16" Round	10"	Plastic	1 1/32"	14 1/2"	Cabinet—Long Slim Blade	.39
9843	5/16" Square	10"	Plastic	1 1/32"	14 1/2"	Cabinet and General Purpose	.45
9743	5/16" Square	10"	Wood	1 1/32"	16 1/8"	Cabinet and General Purpose	.64
9608	3/8" Round	8"	Plastic	1 3/32"	13"	Standard	.52
9808	3/8" Square	8"	Plastic	1 3/32"	13"	Standard	.58
9708	3/8" Square	8"	Wood	1 3/32"	14 13/16"	Heavy-Duty—Metal Cap	.80
9688	3/8" Round	8"	Plastic	No. 4	13"	Phillips No. 4 Bit	.52
9788	3/8" Round	8"	Wood	No. 4	14 1/2"	Phillips No. 4 Bit	.52
9710	3/8" Square	10"	Wood	1 3/32"	16 3/4"	Heavy-Duty—Metal Cap	.92
9712	3/8" Square	12"	Wood	1 3/32"	18 3/4"	Heavy-Duty—Metal Cap	1.00
9714	7/16" Square	14"	Wood	9/16"	22 3/4"	Heavy-Duty—Metal Cap	1.52

SPECIAL SCREWDRIVERS

Phillips Screwdrivers

The four sizes listed below, available in plastic- or wood-handle types, drive the entire range of Phillips cross-slotted screws. Blades are of fine alloy steel.

Plastic-Handle Screwdrivers

NO.	PHILLIPS BIT NO.	SHANK DIAM.	BLADE LENGTH	OVERALL LENGTH	WT., LBS.
9682	1	$\frac{3}{16}$ "	3"	$6\frac{1}{2}$ "	.10
9684	2	$\frac{1}{4}$ "	4"	8"	.18
9686	3	$\frac{5}{16}$ "	6"	$10\frac{1}{2}$ "	.30
9688	4	$\frac{3}{8}$ "	8"	13"	.52

Wood-Handle Screwdrivers

NO.	PHILLIPS BIT NO.	SHANK DIAM.	BLADE LENGTH	OVERALL LENGTH	WT., LBS.
9782	1	$\frac{3}{16}$ "	3"	$6\frac{1}{4}$ "	.07
9784	2	$\frac{1}{4}$ "	4"	$8\frac{7}{8}$ "	.17
9786	3	$\frac{5}{16}$ "	6"	12"	.31
9788	4	$\frac{3}{8}$ "	8"	$14\frac{1}{2}$ "	.52

No. 9671 Stubby Phillips Screwdriver

Needed for many places where longer handle can't be used. Phillips bit No. 2. Plastic handle. Shank diameter, $\frac{1}{4}$ ". Blade length, $\frac{9}{16}$ ". Overall length, $2\frac{7}{16}$ ". Weight, .08 Lb.

Phillips and Standard Screwdriver Sockets

For speedy work. Driven by socket wrench handles and attachments. See listings in $\frac{1}{4}$ ", $\frac{3}{8}$ " and $\frac{1}{2}$ " square drive socket wrench sections of catalog.

Offset Screwdrivers

For drag link and brake adjustments, and work in close places. Bits at right angles to each other.

NO.	BIT WIDTH	LENGTH	WT., LBS.	NO.	BIT WIDTH	LENGTH	WT., LBS.
35 $\frac{1}{4}$	$\frac{1}{4}$ "	3"	.05	36 $\frac{5}{16}$	$\frac{5}{16}$ "	5"	.12
36 $\frac{1}{4}$	$\frac{1}{4}$ "	4 $\frac{3}{4}$ "	.07	36 $\frac{3}{8}$	$\frac{3}{8}$ "	6 $\frac{1}{8}$ "	.21

No. 9752 Tappet Screwdriver

Short and strong. Fine for tappet work and many other jobs. Wood handle with metal cap. Shank, $\frac{3}{16}$ " square. Blade length, $1\frac{3}{4}$ ". Bit width, $\frac{11}{32}$ ". Overall length, $5\frac{3}{4}$ ". Weight, .32 Lb.

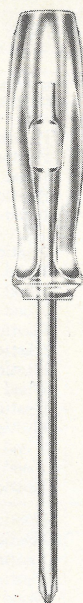
Stubby Plastic-Handle Screwdrivers

Necessary where long handles prevent free turning.

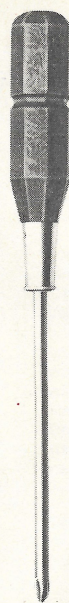
NO.	SHANK SIZE AND SHAPE	BLADE LENGTH	BIT WIDTH	OVERALL LENGTH	WT., LBS.
9651	$\frac{3}{16}$ " Square	1"	$\frac{9}{32}$ "	$2\frac{7}{8}$ "	.08
9652	$\frac{1}{4}$ " Square	$1\frac{1}{2}$ "	$\frac{9}{32}$ "	$3\frac{7}{8}$ "	.14

No. 100 Key Ring Screwdriver

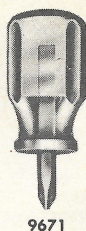
The perfect gift. Has hundreds of uses. Bit width, $\frac{3}{16}$ ". Length, $2\frac{1}{4}$ ". Weight, .015 Lb.



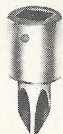
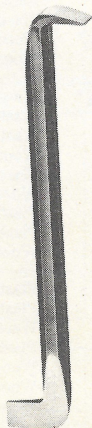
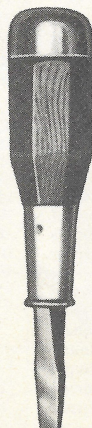
9682-9688



9782-9788



9671

Phillips Screw-
driver SocketScrewdriver
Socket35 $\frac{1}{4}$ - 36 $\frac{1}{4}$ 

9752

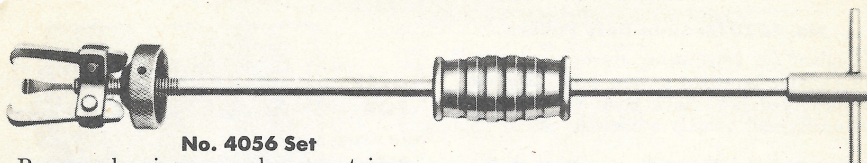


100



9651-9652

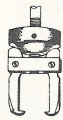
SLIDE-HAMMER PULLERS



No. 4056 Set

Removes bearing cups, sleeves, retainers, axles, etc. Contents shown in right column of table below. Weight, 6.1 Lbs.

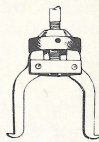
Combinations with 2-Way Yoke 4061



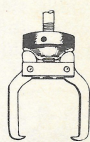
4056J Jaws



4056J Jaws

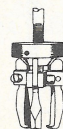


4056L Jaws

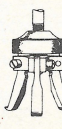


4066 Jaws

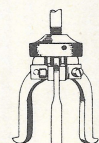
Combinations with 3-Way Yoke 4071



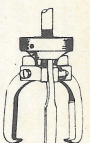
4056J Jaws



4056J Jaws



4056L Jaws



4066 Jaws



4056S



4056N



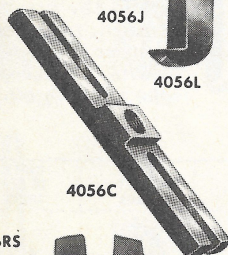
4056L



4056J

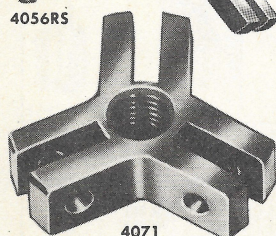


4066

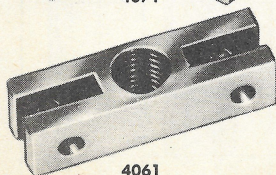


4056C

4056RS



4071



4061

Slide-Hammer Puller Parts

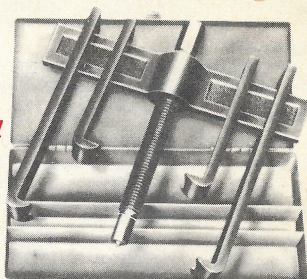
NO.	DESCRIPTION	WT., LBS.	SET 4056 PARTS
4056R	T-Handled Rod, 24" Long.....	1.92	1
4056RS	Short Rod, 12 $\frac{3}{8}$ " Long, for Use in Close Places and Suited for Assembling Valve or Blind Bearing Puller.....	1.00	..
4056H	Sliding Hammer with Fluted Grip.....	2.6	1
4056N	Knurled Reversible Adjusting Nut, 2 $\frac{1}{2}$ " Diameter.....	.74	1
4063	Knurled Non-Reversible Adjusting Nut, 1 $\frac{3}{4}$ " Diameter.....	.25	..
4061	Yoke, 2 $\frac{1}{2}$ " Wide, for Holding Two Jaws....	.24	..
4071	Yoke, 2 $\frac{1}{2}$ " Diameter, for Holding Three Jaws	.33	1
4056PN	Pin for Holding Jaw in Yoke, Held in Place by Ball Check.....	.03	3
4056J	Reversible Jaw, 3 $\frac{1}{2}$ " Long.....	.13	3
4056L	Inside Jaw, 4 $\frac{1}{2}$ " Long.....	.21	..
4066	Outside Jaw, 4 $\frac{1}{2}$ " Long.....	.22	..
4056S	Single Jaw, 2 $\frac{1}{2}$ " Long, for Wheel Alignment, Brake Work, and Pulling Grease Retainers, Small-Diameter Bearings, Bushings, etc....	.18	..
4056C	Deep-Slotted Cap Screw Crossarm, 6" Wide, for Pulling Gears, Pulleys, etc., with Cap Screws.....	1.11	..

MEDIUM AND HEAVY-DUTY PULLERS

No. 4020 Medium-Duty Pullers

Excellent for generators, starter and armature gears, bearings, cones, ball races, etc. Hand-forged jaws have great strength, and are easily and quickly adjusted.

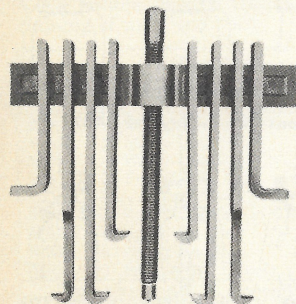
**PULLERS
FOR
Industrial
USE**



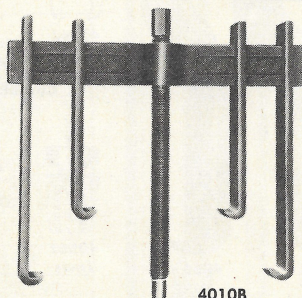
4020A



The detachable tip on Screws 4012 and 4022 does not rotate when the screw is turned, preventing damage to expensive shafts, and keeping the screw on center.



4030B



4010B

Medium-Duty Puller Parts

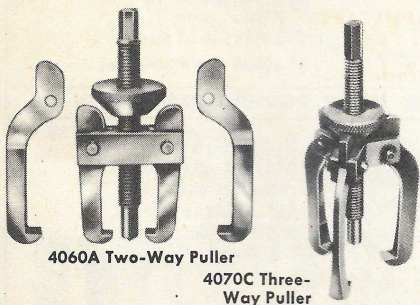
NO.	DESCRIPTION	WEIGHT, LBS.	PARTS IN SET 4020A	PARTS IN SET 4020B
4021	Crossarm, 7" Long.....	.94	1	1
4022	Screw, 7" Long, 1/2" Hexagon Head.....	.42	1	1
4022T	Detachable Tip for 4022 Screw.....	.07	.....	.....
4025	Jaw, 2" from Crossarm to Hook.....	.34	2	2
4026	Jaw, 4" from Crossarm to Hook.....	.45	2	2
4027	Narrow Jaw, 4" from Crossarm to Hook.....	.31	.....	.....
4029	Steel Box, 1 1/2"x3 3/4"x7 1/2".....	.94	1	.....
Set Weight, Lbs.			3.9	2.9

Heavy-Duty Puller Parts

NO.	DESCRIPTION	WEIGHT, LBS.	PARTS IN SET 4010B	PARTS IN SET 4030A	PARTS IN SET 4030B
4011	Crossarm, 11" Long.....	2.7	1	1	1
4012	Screw, 11 1/2" Long, 5/8" Hexagon Head.....	1.20	1	1	1
4012T	Detachable Tip for 4012 Screw.....	.....	.....	.....	.....
4015	Jaw, 4 3/4" from Crossarm to Hook.....	.97	2	2	2
4016	Jaw, 7" from Crossarm to Hook.....	1.24	2	2	2
4017	Timing Gear Jaw, 7" from Crossarm to Hook.....	1.15	.....	2	2
4018	Cap Screw Jaw, 3" from Crossarm to Hook.....	.92	.....	2	2
4019	Steel Box, 1 3/4"x5 1/2"x12".....	1.40	.....	1	.....
Set Weight, Lbs.			8.3	13.9	12.5

LIGHT-DUTY PULLERS

**Fast and Easy to Use on the
Little Pulling Jobs**



4060A Two-Way Puller

4070C Three-Way Puller

These small pullers are designed to pull little gears, pulleys, bearings, etc., quickly and easily. The narrow jaws get into very close places. Adjusting nut No. 4063 holds the jaws firmly in position so they can't slip. If adjusting nut No. 4056N is substituted, the short jaws can be reversed and used for inside pulling. Any $\frac{1}{2}$ " opening wrench can be used on the screw's hex head. The short jaws have a range from 0" to $1\frac{1}{2}$ ", and the long jaws from 0" to 3".

The parts included in the No. 4060A two-way puller and the No. 4070C three-way puller are shown in the two right columns of the table below.

Light-Duty Puller Parts

NO.	DESCRIPTION	WEIGHT, LBS.	PARTS IN SET 4060A	PARTS IN SET 4070C
4022	Screw, $6\frac{3}{4}$ " Long, $\frac{1}{2}$ " Hexagon Head.....	.42	1	1
4022T	Detachable Tip for 4022 Screw.....	.07	..	..
4063	Knurled Non-Reversible Adjusting Nut, $1\frac{3}{4}$ " Diameter....	.25	1	1
4056N	Knurled Reversible Adjusting Nut, $2\frac{1}{2}$ " Diameter.....	.74	..	..
4061	Yoke, $2\frac{1}{2}$ " Wide, for Holding Two Jaws.....	.24	1	..
4071	Yoke, $2\frac{1}{2}$ " Diameter, for Holding Three Jaws.....	.33	..	1
4056PN	Pin for Holding Jaw in Yoke, Held in Place by Ball Check..	.03	2	3
4056J	Reversible Jaw, $3\frac{1}{2}$ " Long, 0" to $1\frac{1}{2}$ " Range.....	.13	2	..
4066	Outside Jaw, $4\frac{1}{2}$ " Long, 0" to 3" Range.....	.22	2	3
Set Weight, Lbs.			1.67	1.75

MORE JOBS WITH FEWER PULLER PARTS

Many puller lines are so designed that a special puller is needed for every type of job, requiring an enormous investment. If you standardize on the pullers in the Proto Tool line, you can take care of almost all jobs with a relatively few parts. The reason is that these puller parts are **inter-changeable**.

For example, a light-duty two-jaw puller can be converted into a three-jaw type by simply adding a three-way yoke, a pin and a jaw. Either a two-jaw or three-jaw light-duty puller can be quickly changed to a slide-hammer puller by replacing the screw with a T-handled rod and hammer. Likewise, the slide-hammer puller can be converted to a light-duty puller by adding

just one screw. This same screw, incidentally, is the same one used for the medium-duty pullers. If you have a light-duty puller, therefore, you can make a medium-duty type by adding a crossarm and two jaws.

Heavy-duty pullers are equally versatile. Conventional jaws can be replaced by cap screw jaws or by jaws for pulling timing gears. Any of these jaws can be used for inside or outside pulling.

On the two following pages are shown a few of the great many applications that are possible with only a few puller parts. In buying pullers, remember that parts interchangeability means more jobs with fewer parts—and less cost to you.

MORE PULLER SETUPS FROM FEWER PARTS

INTER-CHANGEABLE ATTACHMENTS



4056S
Single Jaw
Puller



4080
Blind Bearing
Puller



4056C
Cap Screw
Crossarm

INTER-CHANGEABLE ATTACHMENTS



4056J
Reversible
Jaws

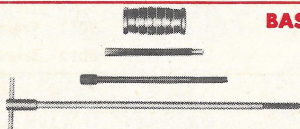


4056L
Inside
Jaws



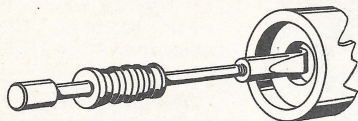
4066
Outside
Jaws

BASIC PARTS

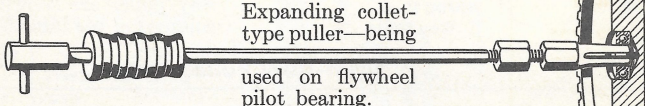


4056H Slide Hammer
4022 Screw
4056RS Short Rod
4056R T-Handled Rod

A FEW OF THE MANY POSSIBLE SETUPS

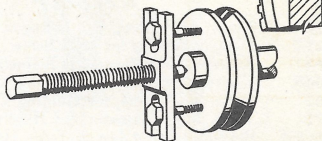


Single-jaw —
pulling grease
retainer with a
 $\frac{3}{4}$ " diameter
center hole.



Expanding collet-
type puller—being
used on flywheel
pilot bearing.

Slotted-type crossarm—remov-
ing harmonic balancer or vibra-
tion dampener, drilled and
tapped for cap screw pulling.



ADDITIONAL BASIC PARTS

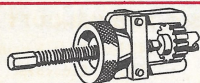
4056PN Jaw Pins

4056N Adjusting Nut



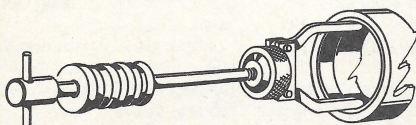
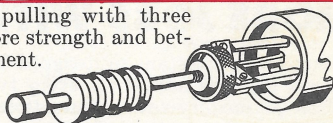
4061 2-Way Yoke

4071 3-Way Yoke



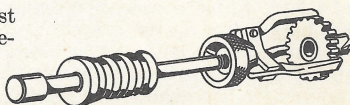
Internal pulling with three
jaws—more strength and bet-
ter alignment.

Quickest, simplest setup
for small gears, etc.



In this setup for pulling
an internal bearing cup,
the adjusting nut locks
the jaws in their expanded
position.

On hollow shafts, where thrust
screws can't be used, the slide-
hammer puller is ideal. If
clearance is restricted, the
short rod may be used.



BETTER WORK COVERAGE AT LOWER COST

INTER-CHANGEABLE HEAVY-DUTY ATTACHMENTS

4015
Short Jaws

4016
Long Jaws

4017
Narrow Jaws

4018
Cap Screw Jaws

MEDIUM-DUTY

4025
Short Jaws

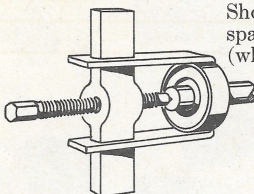
4026
Long Jaws

BASIC HEAVY-DUTY PARTS

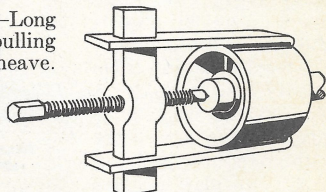
4011 Crossarm

4012 Screw

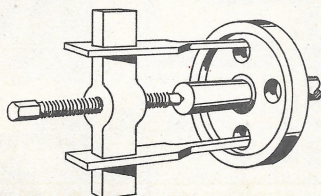
A FEW OF THE MANY POSSIBLE SETUPS



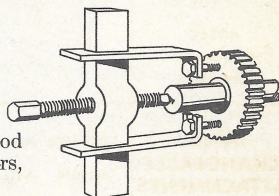
Right—Long jaws pulling wide sheave.



All jaws shown on this page allow a straight, solid pull in their respective ranges.



Left—Many large wheels, gears, etc., have cut-out sections for the insertion of narrow jaws.



Right—Another cap screw pulling method that may be applied to pulleys, gears, harmonic balancers and other parts.

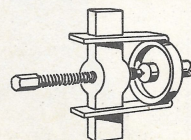
BASIC MEDIUM-DUTY PARTS

4056H Slide Hammer

4021 Crossarm

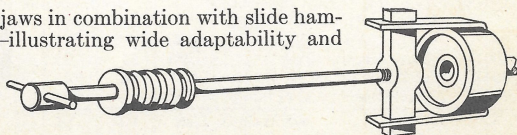
4022 Screw

4056R T-Handled Rod



Common setup for outside pulling of gears, pulleys and bearings on motors, generators, refrigerator compressors, household appliances, hydraulic equipment, etc. Jaws may be reversed for inside pulling.

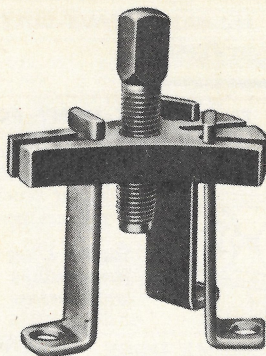
Crossarm and jaws in combination with slide hammer and rod—illustrating wide adaptability and interchangeability of puller parts.



UNIVERSAL WHEEL PULLER

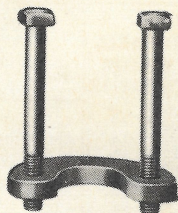
Ideal for Many Types of Pulling Requirements, in Addition to Wheel Removal

This is the simplest and fastest wheel puller made. It pulls wheels of practically every car. Legs shown are quickly adjustable to any drum with 3, 4, 5, 6 or 7 studs, in a circle up to $6\frac{1}{2}$ " diameter. With No. 4001JT legs, it is adaptable to any drum with studs in a circle up to 8". Regular legs are drilled to take up to $\frac{9}{16}$ " studs; 4001JT legs will take up to $\frac{3}{4}$ " studs.

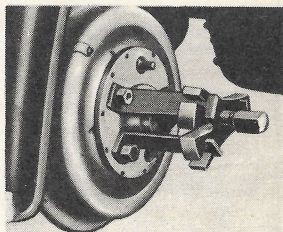


Assembly of 4001S Screw, 4001B Body and Three 4001J Legs

Right — Using the Universal Puller on a Ford V8 Wheel



4001R Ford Adapter Ring and 4001C Screws



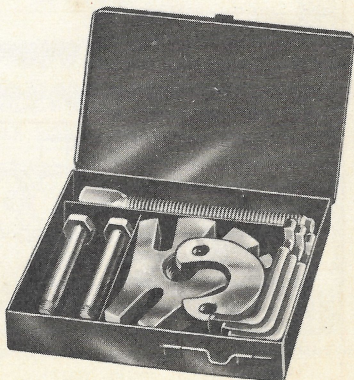
The popular Universal Wheel Puller makes other types of wheel pullers obsolete. For all cars, including Ford (with adapter shown above), and for light trucks. With the No. 4001JT legs, listed below, pulls wheels of light trucks, such as Chevrolet and International.

No. 4001T Steel Box

Box, illustrated below, is made of heavy-gauge sheet steel and the wheel puller fits into it as shown. $1\frac{1}{2}$ " deep, $8\frac{1}{4}$ " wide, $8\frac{1}{2}$ " long. Three compartments. Wt., 1.92 Lbs.

Wheel Puller Parts

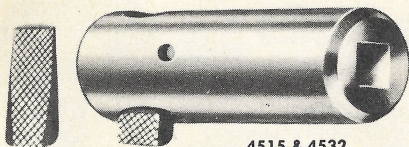
NO.	DESCRIPTION	WT., LBS.	PARTS IN SET 4001	PARTS IN SET 4001A
4001B	Puller Body, $6\frac{3}{4}$ " Long...	3.9	1	1
4001C	Ford Adapter Cap Screws, $4\frac{1}{2}$ " Long.....	.38	2	2
4001J	Leg— $1\frac{1}{16}$ " Leg Offset to Clear Hubs, $3\frac{1}{8}$ " from Crossarm to Offset.....	1.00	3	3
4001JT	Leg— $1\frac{3}{4}$ " Leg Offset to Clear Hubs, $3\frac{1}{8}$ " from Crossarm to Offset.....	1.00	—	—
4001R	Ford Adapter Ring.....	.68	1	1
4001S	1" Puller Screw, 8" Long..	1.44	1	1
4001T	Steel Box, $1\frac{1}{2}$ "x $8\frac{1}{4}$ "x $8\frac{1}{2}$ "	1.92	—	1
Set Weight, Lbs.		9.6	12	



4001A Wheel Puller Set

SPECIAL-PURPOSE PULLERS

Stud Pullers



4515 & 4532

These detachable wedge type pullers—adaptable to both power and hand tool use—have been proved in service to be far superior to the eccentric roller type. They give long service, handle very short studs ($\frac{3}{4}$ " for the No. 4515), and have a small turning radius which clears many obstructions that would block operation of other types. The tapered, deeply-serrated wedges grip tighter as pressure is applied and take a firm hold on stubborn studs. Each puller has two wedges to increase the useable range. A spring-tensioned pin holds the wedges in the body when not in use. No. 4515 is $1\frac{3}{16}$ " in diameter and $3\frac{1}{2}$ " long. No. 4532 is $2\frac{1}{8}$ " in diameter and $5\frac{1}{2}$ " long.

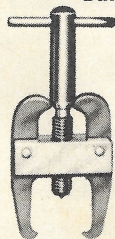
STANDARD $\frac{1}{2}$ " SQUARE DRIVE

NO.	DESCRIPTION	FOR STUDS	WT., LBS.
4515	Stud Puller Complete	$\frac{1}{4}$ "- $\frac{5}{8}$ "	.78
4516	Thick Wedge Only	$\frac{1}{4}$ "- $\frac{7}{16}$ "	.09
4517	Thin Wedge Only	$\frac{1}{2}$ "- $\frac{5}{8}$ "	.07

HEAVY-DUTY $\frac{3}{4}$ " SQUARE DRIVE

4532	Stud Puller Complete	$\frac{5}{8}$ "-1"	3.4
4533	Thick Wedge Only	$\frac{5}{8}$ "- $\frac{3}{4}$ "	.34
4534	Thin Wedge Only	$\frac{3}{4}$ "-1"	.18

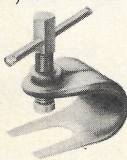
Battery Terminal Pullers



4041

Wt., .65 Lb.

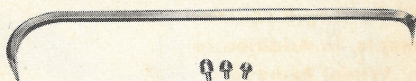
Remove terminals quickly and easily, without damaging posts. No. 4041, a conventional type, can be used for small bearings and other jobs. No. 4042, an unusual type, costs less and is faster to set up and use.



4042

Wt., .44 Lb.

No. 4050 Pinion Puller Bar



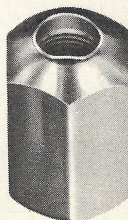
Designed for speedy removal of pinion assembly on GM cars with enclosed drive shaft, but can be used for many other pulling and prying jobs. Three sizes of fulcrum plugs are provided, thus eliminating any leverage problems. A solid tool, easy and safe to use. Length, $31\frac{1}{4}$ ". Weight, 5.5 Lbs. Parts: Bar Only—4050B. Large Fulcrum Plug—4050L. Medium Plug—4050M. Small Plug—4050S.

No. 4080 Blind Bearing Puller



A simple, efficient collet-type puller for pulling Chevrolet, Ford and Packard pilot bearings quickly and without damage. Turning the screw expands outer shoulder and grips bearing. Has an exceptional range of expansion and therefore has many uses. Can be used alone or with a No. 4056 slide-hammer puller. Length, $4\frac{1}{2}$ ". Weight, .34 Lb. Parts: Body only—4080B. Screw Only—4080S.

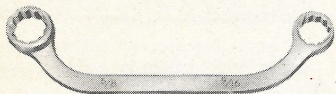
No. 4082 Wheel Bolt Inserter and Peener



For installing new wheel attaching bolts in rear axle flanges of Chevrolets. With this tool you can replace a bolt in $\frac{1}{6}$ th the usual time because it makes removal of rear axle and other parts unnecessary. Screwing tool onto a new bolt with countersunk end toward flange pulls bolt tightly into position. Using eccentric end peens shoulder of bolt into space provided on flange. Length, $1\frac{3}{8}$ ". Weight, .19 Lb.

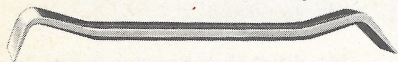
SPECIAL-PURPOSE TOOLS

No. 1730 Obstruction Box Wrench



For turning nuts where obstructions prevent easy access with straight wrenches, and especially useful on many starters. Clearance at middle, 1". Openings, 12-point, $\frac{9}{16}$ " x $\frac{5}{8}$ ". Length, $6\frac{3}{32}$ ". Weight, 1.21 Lbs. For other sizes, see Page 11.

No. 2006 Brake Adjusting Tool

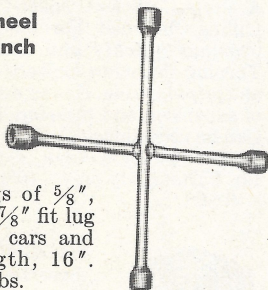


Star nut adjuster for two-shoe Bendix brakes. Length of each spoon, $1\frac{5}{8}$ ". Overall length, $8\frac{1}{2}$ ". Weight, .19 Lb.

No. 2151 Wheel Lug Nut Wrench

A speedy, four-way rim wrench, forged for strength.

Hex openings of $\frac{5}{8}$ ", $\frac{3}{4}$ ", $\frac{13}{16}$ " and $\frac{7}{8}$ " fit lug nuts of most cars and trucks. Length, 16". Weight, 2.5 Lbs.

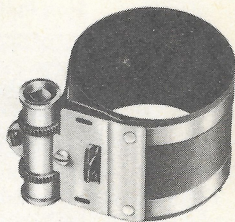


No. 2301 Muffler Removal Tool



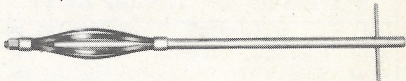
A practical, simple and inexpensive tool for removing mufflers and tailpipes. Easy and safe to use. Makes quick work of taking off worn-out mufflers that are corroded, burned and hard to reach. Prevents damage to useable parts. Forged from fine electric-furnace chisel steel. Length, $6\frac{1}{8}$ ". Weight, .44 Lb.

No. 2316 Piston Ring Compressor



Sturdy, ratchet-type—noted for easy, trouble-free operation. Wideband ($3\frac{1}{2}$ ") completely encircles the rings, expands to 5", contracts to $2\frac{3}{16}$ ", and has corrugated edge. Two narrow bands take strain. Bottom band prevents flaring and possible ring breakage as rings leave compressor. Dual ratchets synchronize operation of bands, prevent band breakage and eliminate slippage. Diameter is compressed .003" per tooth. A simple trigger device positively locks or releases ratchets and bands. Spindle has $\frac{1}{4}$ " square opening and is turned by an ell handle, furnished with each compressor. Weight, .63 Lb.

No. 2335 Valve Guide Cleaner



Turning a nut adjusts the five flexible blades to any valve guide size. Length, $9\frac{3}{4}$ ". Weight, .10 Lb. Extra blade—2335B.

No. 2336 Gasket Scraper



For removing shellacked gaskets, scraping carbon and many other uses. Length, $11\frac{1}{8}$ ". Blade width, $1\frac{1}{2}$ ". Weight, .32 Lb.

No. 2337 Flexible Carbon Scraper



Sliding band regulates the flexibility of the ten round spring steel blades. Length, 9". Width, 1". Weight, .30 Lb.

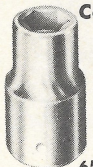
SPECIAL-PURPOSE TOOLS

Heavy-Duty Screwdriver Sockets



For drag links and screw adjustments on steering assemblies, shock absorbers, starters, etc. Other types—Pages 21 and 23.

NO.	DRIVE	BIT SIZE	LGTH.	LBS.
5244	$\frac{3}{8}$ "	$\frac{1}{16}$ " x .116"	$\frac{1}{4}$ "	.07
5444	$\frac{1}{2}$ "	$\frac{3}{4}$ " x .125"	$\frac{1}{16}$ "	.13
5446	$\frac{1}{2}$ "	$\frac{15}{16}$ " x .125"	$\frac{1}{16}$ "	.17



Connecting Rod Sockets

Thin nose, hexagon, $\frac{1}{2}$ " drive sockets. No. 6523 is for Ford V8 con. rod nuts. No. 6522 is for La Salles and Cadillacs.



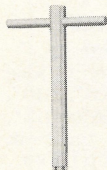
6522

6523

NO.	OPENING	LENGTH	WT., LBS.
6522	$\frac{7}{16}$ "	$1\frac{5}{8}$ "	.16
6523	$\frac{9}{16}$ "	$1\frac{3}{4}$ "	.12

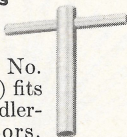
No. 6525 Cylinder Head T-Handle

Speeds turning of V-type engine head bolts with $\frac{1}{2}$ " drive sockets. Weight, 3.9 Lbs. Parts: Extension, 30" Long, of $\frac{5}{8}$ " Non-Twisting Stock—6525E. Pin Handle, 18" Long, $\frac{9}{16}$ " Stock—6525P.



Carburetor Jet Wrenches

Turn jets quickly, without damaging soft jet material. No. 6526 (Wt., .09 Lb.) fits Holley and Chandler-Groves carburetors. No. 6528 (Wt., .08 Lb.) fits nearly all Stromberg carburetors.



6526

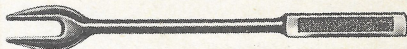


6528

No. 6539 Ford V8-85 Valve Lifter

Long leverage breaks loose the toughest guides. Push guide down to remove keeper, and then pry to force out the guide. Stock, $\frac{3}{4}$ ". Length, 30". Weight, 3.5 Lbs.

No. 6545 Ford Drag Link and Shock Arm Tool



A real time saver—better known as the "pickle fork." Tapered fork of slim design is readily inserted to separate shock links and tie rods. Length, 16". Fork opening, $\frac{21}{32}$ ". Weight, 1.80 Lbs.

No. 6546 Pitman Arm Pry Bar



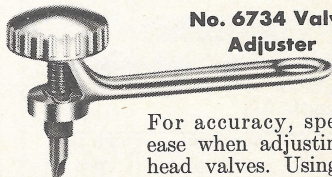
Eliminates need for expensive pullers to remove Pitman arms from steering assemblies. Equally useful for removing gears, bearings and pulleys, and for lifting cylinder head blocks and heavy assemblies. Length, 20". Fork opening, $1\frac{1}{4}$ ". Weight, 2.8 Lbs.

No. 6601 Starter Wrench



For Plymouth, Dodge, DeSoto and Chrysler cars. Clears objects when removing or replacing starter. Has $\frac{5}{8}$ " box opening. Length, $9\frac{3}{4}$ ". Weight, .32 Lb.

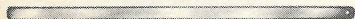
No. 6734 Valve Adjuster



For accuracy, speed and ease when adjusting overhead valves. Using a $\frac{1}{2}$ " drive socket wrench, first loosen lock nut. Then operate screwdriver for adjustment, setting valve clearance with feeler gauges. Also used with clutch adjusting machines. Weight, .55 Lb. Extra Screwdriver Blade with Knob—6734S.

FEELER GAUGES AND GAUGE SETS

Standard Feeler Gauges



Of superior quality, these thickness gauges are accurately ground and correctly heat treated to remain true after long use.

Short Blades

1/2" Wide, 3 1/4" Long

NO.	THICK- NESS	WT., LB.
0015	.0015"	.002
002	.002"	.002
003	.003"	.002
004	.004"	.002
005	.005"	.003
006	.006"	.003
007	.007"	.004
008	.008"	.004
009	.009"	.004
010	.010"	.005
011	.011"	.005
012	.012"	.005
013	.013"	.006
014	.014"	.006
015	.015"	.007
016	.016"	.008
017	.017"	.008
018	.018"	.009
020	.020"	.010
022	.022"	.011
025	.025"	.012
030	.030"	.013
032	.032"	.015
035	.035"	.016
040	.040"	.017

Long Blades

1/2" Wide, 12" Long

NO.	THICK- NESS	WT., LB.
0015L	.0015"	.002
002L	.002"	.004
003L	.003"	.006
004L	.004"	.008
005L	.005"	.009
006L	.006"	.012
008L	.008"	.016
010L	.010"	.019
012L	.012"	.021
013L	.013"	.023
015L	.015"	.027
017L	.017"	.028
018L	.018"	.030

No. 000C Feeler Gauge Holder



For 3 1/4" feeler blades. Holds all available sizes. Weight, .05 Lb.

Step-Cut Feeler Gauges

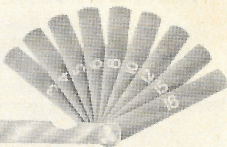


"Go and no-go" type, each blade having two different thicknesses. Width, 1/2". Length, 3 1/4".

NO.	THICKNESSES	WT., LB.
004/6	.004" & .006"	.002
005/7	.005" & .007"	.002
006/8	.006" & .008"	.003
007/9	.007" & .009"	.003
008/10	.008" & .010"	.004
009/11	.009" & .011"	.004
010/12	.010" & .012"	.006
011/13	.011" & .013"	.007

No. 000A Standard Feeler Gauge Set

Nine short blades—003, 004, 005, 006, 008, 010, 012, 015 and 018—in 000C holder. Wt., .09 Lb.

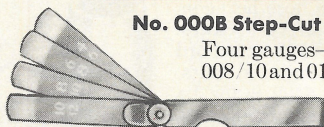


No. 000AA Standard Feeler Gauge Set

A master set, with all 25 short blades—0015 through 040—in 000C holder. Wt., .23 Lb.

No. 000B Step-Cut Gauge Set

Four gauges—004/6, 006/8, 008/10 and 010/12—in 000C holder. Wt., .06 Lb.



No. 000BB Step-Cut Gauge Set

Master set, with eight gauges—004/6 through 011/13—in 000C holder. Wt., .08 Lb.

Ten 3/16" wide by 1 1/2" long blades—

.011", .012", .014", .018", .020", .022", .025", .028", .032" and .035" thick—in holder. Wt., .03 Lb.

No. 000D Ignition Gauge Set



Blades not sold separately.

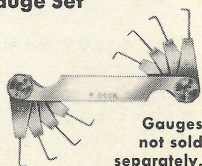
No. 000E Brake Gauge Set

Nine 3/16" wide by 4" long blades—.006", .008", .010", .012", .014", .016", .018", .020" and .025" thick—in holder. Wt., .04 Lb.

Blades not sold separately.

No. 000K Spark Plug Gauge Set

For checking spark plug gaps. Eight bent-wire gauges—.022", .025", .027", .028", .030", .032", .035" and .040" thick—in holder. Wt., .06 Lb.



Gauges not sold separately.

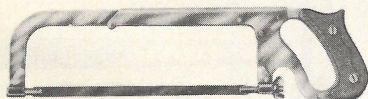
HACKSAWS, BARS AND BENDING TOOL

No. 344 Low-Clearance Hacksaw



All metal. For use where high frame won't work. Takes 10" blades. Weight, .67 Lb.

No. 352 Adjustable Hacksaw



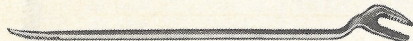
A heavy-duty polished and plated frame with many fine features. Pistol-grip handle, of durable red plastic, is at an angle and shaped to fit the hand. Takes 8", 10" or 12" blades, which can be set in four different positions. Weight, 1.62 Lbs.

No. 360 Adjustable Hacksaw



Inexpensive, but sturdy and serviceable. Pistol grip handle. Weight, 1.20 Lbs.

No. 2110 Grease and Utility Bar



For lube work, but fine for pulling up floors and other jobs. Offset wrench-like opening clears objects. Teeth prevent slipping. Length, 28". Weight, 3.4 Lbs.

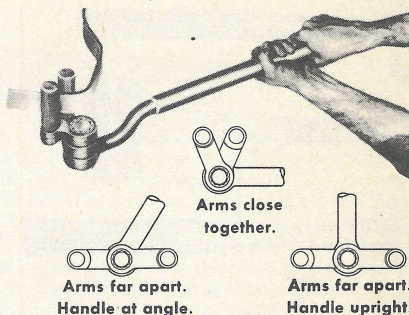
Conventional-Type Pry Bars



For countless prying and aligning jobs. Forged from special alloy steel and correctly heat treated for extra strength.

NO.	STOCK	LENGTH	WT., LBS.
2116	1/2" Octagon	16"	.79
2120	5/8" Octagon	18"	1.36
2124	3/4" Octagon	24"	2.6

No. 2135 Adjustable Bending Tool



Adjustable to over 100 positions, this efficient bending bar has a multitude of uses. It handles many otherwise difficult jobs because it operates with small handle swing, and it saves buying the assortment of solid bars used in shops.

It is ideal for bending and aligning bumper brackets, frame horns, pillars, rods, front ends and steering parts. In automotive work it is used for spreading springs, straightening steering arms and tie rods, aligning parts, and lifting heavy assemblies. In farm implement repair it is useful for holding, aligning and shaping of tool bar standards, brackets, and harrow and cultivator frames.

Length, 36". Weight, 11 Lbs. Parts: Body Only—2135B. Handle—2135H. Lower Arm—2135L. Upper Arm—2135S.

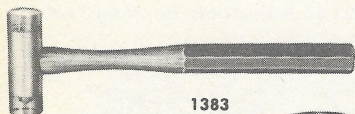
Rolling Head Bars



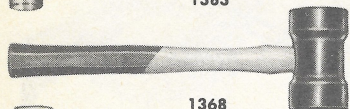
New type gear bar, with 90° rolling head. One of the handiest types of bars you can own, having a great many uses. Especially valuable for getting into close places, such as behind gears.

NO.	STOCK	LENGTH	WT., LBS.
2126	1/2" Octagon	16"	.86
2130	5/8" Octagon	18"	1.62

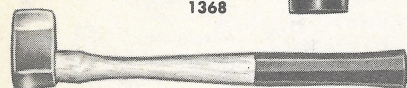
HAMMERS



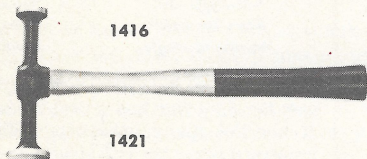
1383



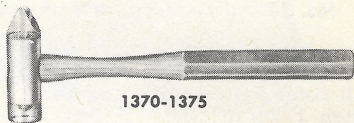
1368



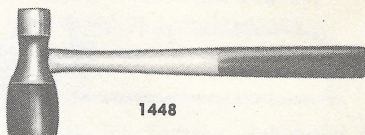
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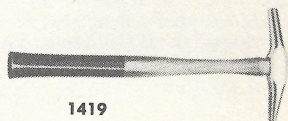
1421



1370-1375

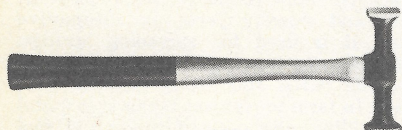


1448

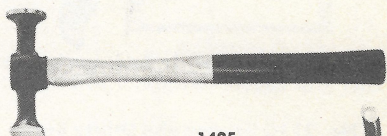


1419

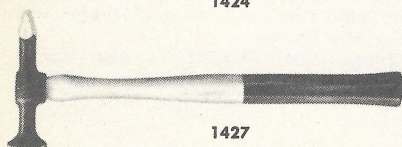
You will find a Hammer of every type and for every purpose in Body and Fender Work.



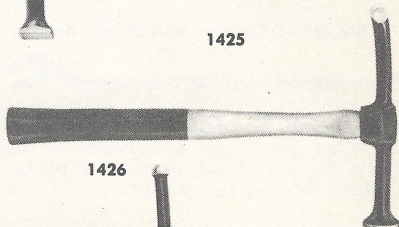
1424



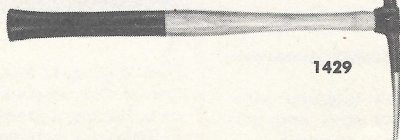
1425



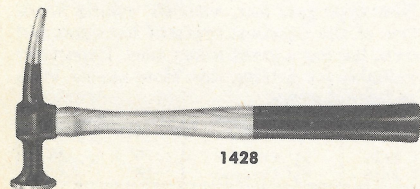
1427



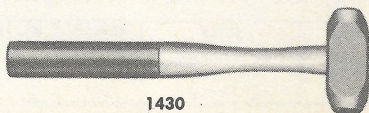
1426



1429



1428



1430



HAMMERS

No. 1368 Rubber Mallet

Every repair man finds this hammer a necessity, especially where a metal hammer would mar the surface. Length, 15". Weight, 1.50 Lbs.

Soft-Tipped Hammers

Have removable tips of molded plastic. Will stand lots of pounding and still not damage the material.

- 1370 Plastic-tip hammer, with cross pein tip. Weight, .50 Lb.
- 1375 Plastic-tip hammer, with cross pein tip. Weight, 1.00 Lb.
- 1383 Plastic-tip hammer, with round tips. Weight, .50 Lb.
- 1370C Extra round face tip.
- 1370D Extra cross pein tip.

No. 1416 Long Head Bumping Hammer

Provides extreme clearance for late model fenders. Weight is decreased and perfect balance achieved by means of a semi-I-beam. Neck head, 9". Clearance, 6 $\frac{3}{4}$ ". Weight, 2.75 Lbs.

No. 1419 Magnetic Trim Hammer

A favorite because of its long reach and head radii. The head is curved in about the arc of a natural swing. Length of head, 5 $\frac{1}{2}$ ". Weight, .44 Lb.

No. 1421 Dinging Hammer

Has large face for roughing the bad ones into shape for finishing. Head is 6" long, with 1 $\frac{1}{4}$ " and 1 $\frac{5}{8}$ " round faces. Faces are slightly crowned. Weight, 1.25 Lbs.

No. 1424 Finishing Hammer

Light in weight and perfectly balanced. Has slightly crowned 1 $\frac{1}{4}$ "-diameter round face, and a 1 $\frac{1}{16}$ " square face. Weight, .50 Lb.

No. 1425 Finishing Hammer

Heavier than 1424. Has slightly crowned 1 $\frac{1}{2}$ "-diameter round face, and a 1 $\frac{1}{8}$ " square face. Weight, .75 Lb.

No. 1426 Long Body Finishing Hammer

For crowned fenders and other places where clearance is needed. Has slightly crowned 1 $\frac{3}{8}$ "-diameter round face with 3 $\frac{1}{2}$ " clearance, and a round cross pein, 1 $\frac{1}{8}$ " wide, with 4" clearance. Weight, .75 Lb.

No. 1427 Finishing Hammer

Has wedge shaped 1"-wide cross pein with 2 $\frac{1}{2}$ " clearance. Used for fender beads, corner along panel beading, etc. Has slightly crowned 1 $\frac{3}{8}$ "-diameter round face with 2" clearance. Weight, .50 Lb.

No. 1428 Pecking Hammer

Has pointed end for picking out small dents and a round face for finishing. Head is 5 $\frac{7}{8}$ " long overall. Slightly crowned round face is 1 $\frac{1}{2}$ " in diameter. Weight, .75 Lb.

No. 1429 Turret Top Pecking Hammer

Eliminates uncomfortable reaching. Handle, 18", reaches to center of turret top. Head is 9" long overall. This hammer combines a long curved pecking point with a long-necked ball pein. Weight, 1.00 Lb.

No. 1430 Brass Hammer

One of the most satisfactory soft hammers ever used. Weight, 1.75 Lbs.

No. 1448 Two-Way Hammer

A very useful combination hammer, with a steel head on one end and a rubber head on the other end. The ideal hammer for mounting tires and drawing rivets. Also used by plumbers, machinists and woodworkers. Weight, 2.25 Lbs.

1448B—Extra rubber head for Two-Way Hammer No. 1448. Weight, .28 Lb.

NUPLAFLEX PLASTIC-TIP HAMMERS

Ideal for Surfaces and Parts That Would be Marred, Scratched or Otherwise Damaged by a Metal Hammer, and Having Over

1,000 Uses



Complete hammers include two with soft tips and ten with tough tips—consisting of five pairs (the two in each pair having same head size but different weights). Extra tips—in tough, medium and soft grades and distinguished by different colors—are for replacing worn-out tips and making all-purpose hammers with two types of tips.

Complete Nuplaflex Hammers

WITH TOUGH (GREEN) TIPS				
NO.	WEIGHT, LBS.	HEAD DIAM.	HEAD LENGTH	HANDLE LENGTH
1388(100)	.31	1"	3 1/2"	11 3/8"
1389(105)	.50	1"	3 1/2"	11 3/8"
1390(150)	.75	1 1/2"	4 3/8"	13"
1391(155)	1.00(1.25)	1 1/2"	4 3/8"	13"
1392(200)	1.25(1.50)	2"	4 1/2"	14"
1393(205)	2.0	2"	4 1/2"	14"
1394(250)	2.0	2 1/2"	5 1/4"	15"
1395(255)	3.5 (4.0)	2 1/2"	5 1/4"	18"
1396(300)	3.0 (3.5)	3"	6 1/4"	18"
1397(305)	5.0 (6.0)	3"	6 1/4"	21"
WITH SOFT (AMBER) TIPS				
1398(150)	.75	1 1/2"	4 3/8"	13"
1399(200)	1.25(1.50)	2"	4 1/2"	14"

NOTE: Catalog numbers in parenthesis are those used by the manufacturer of Nuplaflex materials. Hammer weight differences are shown also in parenthesis.

Nuplaflex Tips Only

TOUGH (GREEN) NO.	MEDIUM (RED) NO.	SOFT (AMBER) NO.	WT. LB.	HEAD DIAM.
1388T(10T)	1388M(10M)	1388S(10S)	.04	1"
1390T(15T)	1390M(15M)	1390S(15S)	.10	1 1/2"
1392T(20T)	1392M(20M)	1392S(20S)	.23	2"
1394T(25T)	1394M(25M)	1394S(25S)	.39	2 1/2"
1396T(30T)	1396M(30M)	1396S(30S)	.60	3"

Nuplaflex hammers offer many advantages over rawhide, brass, lead and other plastic types. They are perfect for use on threads, soft metal, fenders, tires, leather, furs, and painted, polished or plated surfaces.

The revolutionary plastic used—Nuplaflex—has these important features: (1) Recovers original shape when bent, dented or cut; (2) Doesn't flake off under hard blows; (3) Lasts many times longer than most other types; (4) Positively safe from explosions; (5) Tips and heads are non-sparking and safe around explosive fumes; (6) Won't burn readily unless held in flame (Approved by Underwriters' Laboratory); (7) Oil and grease resistant; (8) Absorbs sting-causing vibration; (9) Has minimum rebound, reducing fatigue and speeding work.

Tips are anchored securely by an automatic locking device but are easy to detach. The streamlined head design is another feature.

Hammer Handles

Made of tough, straight-grained, second-growth hickory. Shaped to give a sure grip.

NO.	FOR HAMMERS	EYE SIZE	LENGTH	WT., LB.
1370H	1370, 1375 & 1383	1/2" Diameter	12"	.22
1388H	1388 & 1389	1 1/2" x 9/16"	11 3/8"	.13
1390H	1390, 1391 & 1398	1/2" x 3/4"	13"	.22
1392H	1392, 1393 & 1399	1/2" x 3/4"	14"	.32
1394H	1394	3/4" x 1 1/16"	15"	.38
1396H	1395, 1396 & 1397	3/4" x 1 1/8"	18"	.56
1416H	1416 & 1448	5/8" x 1"	17 3/8"	.44
1419H	1419	15/32" x 5/8"	11 3/4"	.19
1424H	1424 & 1427	1 1/2" x 1 1/16"	13 1/8"	.18
1426H	1421, 1425, 1426 & 1428	1 3/32" x 1 3/16"	13"	.24
1429H	1429	5/8" x 1 1/16"	17 3/8"	.34
1430H	1430	7/16" x 7/8"	16 1/8"	.37

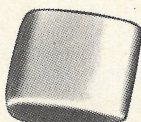
BODY AND FENDER TOOLS



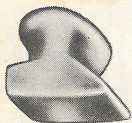
1452



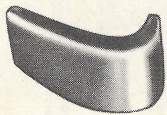
1454



1457



1453



1455



1458

All Dollies Are Forged of Alloy Steel, Hardened and Tempered, and Polished on Working Surfaces. They Maintain Smooth Surfaces Over Long Periods.

No. 1454 Radius Dolly

Useful design, with many radii. One side and bottom are flat for dinging flat surfaces. Both ends high crowned. Size, $1\frac{1}{2}$ " x $2\frac{1}{2}$ " x $4\frac{1}{2}$ ". Weight, 2.9 Lbs.

No. 1455 Bead Dolly

Another popular dolly, used for beads or flanges on fenders. Flat side works under long curve of fender. Thin edge is useful for corners and beading. Size, $1\frac{1}{8}$ " x $2\frac{25}{32}$ " x $4\frac{7}{16}$ ". Weight, 2.4 Lbs.

Dolly Blocks

No. 1452 Egg-Shaped Dolly

A very useful and popular shape, with a great many different curves and angles. Size, $1\frac{5}{8}$ " x $2\frac{1}{2}$ " x $3\frac{3}{4}$ ". Weight, 2.7 Lbs.

No. 1453 Railroad or General Purpose Dolly

Has a large variety of radii, perfect hand fit, thin beading edge, and $7\frac{1}{2}$ square inches on largest face. Heavy weight is ideal for bumping out dents. Size, $2\frac{3}{8}$ " x $2\frac{3}{4}$ " x $2\frac{3}{32}$ ". Weight, 2.9 Lbs.

No. 1457 Shrinking Dolly

The unique shape and low crown make this dolly ideal for shrinking body metal, and for raising beads and molding. Size, $1\frac{1}{4}$ " x $3\frac{1}{16}$ " x $3\frac{3}{16}$ ". Weight, 2.2 Lbs.

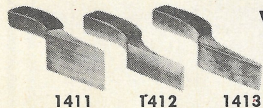
No. 1458 Semi-Elliptical Heel Dolly

Provides two flat and two crowned working surfaces. Very useful in restricted places. Suitable for shrinking metal. Size, $1\frac{1}{16}$ " x $2\frac{3}{8}$ " x $3\frac{1}{4}$ ". Weight, 2.2 Lbs.

No. 1526 Panel Cutting Chisel



A rugged one-piece ripping chisel that eliminates replacement of delicate cutters. Length, 14". Weight, 1.14 Lbs.



1411

1412

1413

Wood Paddles for Making Solder Fills
Highly char-resistant.

NO.	WORKING AREA	LENGTH	WT., LB.
1411	Flat, $1\frac{1}{16}$ " x $3\frac{1}{4}$ "	$7\frac{3}{4}$ "	.10
1412	Curved, $1\frac{1}{2}$ " x $2\frac{7}{8}$ "	$7\frac{3}{4}$ "	.08
1413	Flat, $1\frac{1}{8}$ " x $3\frac{1}{4}$ "	$7\frac{3}{4}$ "	.08

No. 1400SP Solder Paddle Set

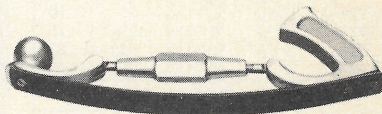
Three paddles listed above. Wt., .26 Lb.

No. 1501 Flexible Straight File



Fast cutting type for all kinds of body, fender and sheet metal work. Has curved teeth on both sides. Length, 14". Width, $1\frac{3}{8}$ ". Weight, .70 Lb.

No. 1509 Adjustable File Holder



Made of aluminum, this fender file holder is light but strong. Simple adjustment makes file convex, concave or flat. Length, 16". Weight, 1.86 Lbs.

PUNCHES AND CHISELS

ALIGNING PUNCH

NO.	POINT	STOCK	LGTH.	WT., LBS.
155 $\frac{7}{8}$	3 $\frac{1}{16}$ "	5 $\frac{7}{8}$ " Oct.	16"	.98

CENTER PUNCHES

411 $\frac{1}{4}$	----	1 $\frac{1}{4}$ " Oct.	41 $\frac{1}{4}$ "	.05
415 $\frac{1}{16}$	----	5 $\frac{1}{16}$ " Oct.	49 $\frac{3}{8}$ "	.10
413 $\frac{3}{8}$	----	3 $\frac{3}{8}$ " Oct.	41 $\frac{1}{2}$ "	.14
417 $\frac{1}{16}$	----	1 $\frac{1}{16}$ " Oct.	51 $\frac{1}{4}$ "	.20
411 $\frac{1}{2}$	----	1 $\frac{1}{2}$ " Oct.	59 $\frac{3}{8}$ "	.30
415 $\frac{5}{8}$	----	5 $\frac{5}{8}$ " Oct.	6"	.44

PRICK PUNCHES

441 $\frac{1}{4}$	----	1 $\frac{1}{4}$ " Oct.	43 $\frac{1}{4}$ "	.06
445 $\frac{1}{16}$	----	5 $\frac{1}{16}$ " Oct.	5"	.10
443 $\frac{3}{8}$	----	3 $\frac{3}{8}$ " Oct.	51 $\frac{1}{4}$ "	.15

RIVET OR PIN PUNCHES

471 $\frac{1}{4}$ x1 $\frac{1}{4}$	1 $\frac{1}{16}$ "	1 $\frac{1}{4}$ " Oct.	43 $\frac{3}{8}$ "	.05
471 $\frac{1}{4}$ x3 $\frac{32}$	3 $\frac{32}{64}$ "	1 $\frac{1}{4}$ " Oct.	43 $\frac{3}{8}$ "	.07
475 $\frac{1}{16}$ x1 $\frac{1}{8}$	1 $\frac{1}{8}$ "	5 $\frac{1}{16}$ " Oct.	51 $\frac{1}{4}$ "	.08
475 $\frac{1}{16}$ x5 $\frac{32}$	5 $\frac{32}{64}$ "	5 $\frac{1}{16}$ " Oct.	59 $\frac{3}{8}$ "	.10
473 $\frac{3}{8}$ x3 $\frac{16}$	3 $\frac{16}{64}$ "	3 $\frac{3}{8}$ " Oct.	61 $\frac{1}{8}$ "	.17
477 $\frac{1}{4}$ x1 $\frac{1}{2}$	1 $\frac{1}{2}$ "	1 $\frac{1}{2}$ " Oct.	65 $\frac{3}{8}$ "	.23
471 $\frac{1}{2}$ x1 $\frac{1}{4}$	1 $\frac{1}{4}$ "	1 $\frac{1}{2}$ " Oct.	7"	.32

STARTING PUNCHES

503 $\frac{1}{16}$	1 $\frac{1}{16}$ "	3 $\frac{1}{16}$ " Oct.	41 $\frac{1}{4}$ "	.04
501 $\frac{1}{4}$	3 $\frac{32}{64}$ "	1 $\frac{1}{4}$ " Oct.	45 $\frac{3}{8}$ "	.06
505 $\frac{1}{16}$	1 $\frac{1}{8}$ "	5 $\frac{1}{16}$ " Oct.	51 $\frac{3}{8}$ "	.10
503 $\frac{3}{8}$	3 $\frac{16}{64}$ "	3 $\frac{3}{8}$ " Oct.	59 $\frac{3}{8}$ "	.17
507 $\frac{1}{16}$	7 $\frac{32}{64}$ "	1 $\frac{1}{16}$ " Oct.	6"	.24
501 $\frac{1}{2}$	1 $\frac{1}{4}$ "	1 $\frac{1}{2}$ " Oct.	61 $\frac{1}{2}$ "	.35

LONG TAPER DRIFT PUNCHES

961 $\frac{1}{4}$	3 $\frac{32}{64}$ "	1 $\frac{1}{4}$ " Oct.	10"	.16
965 $\frac{1}{16}$	1 $\frac{1}{8}$ "	5 $\frac{1}{16}$ " Oct.	10"	.18
963 $\frac{3}{8}$	3 $\frac{16}{64}$ "	3 $\frac{3}{8}$ " Oct.	10"	.28
967 $\frac{1}{16}$	7 $\frac{32}{64}$ "	1 $\frac{1}{16}$ " Oct.	10"	.36
961 $\frac{1}{2}$	1 $\frac{1}{4}$ "	1 $\frac{1}{2}$ " Oct.	10"	.48
965 $\frac{5}{8}$	5 $\frac{16}{64}$ "	5 $\frac{5}{8}$ " Oct.	10"	.71
963 $\frac{3}{4}$	3 $\frac{3}{8}$ "	3 $\frac{3}{4}$ " Oct.	10"	1.01

RIVET CUTTER

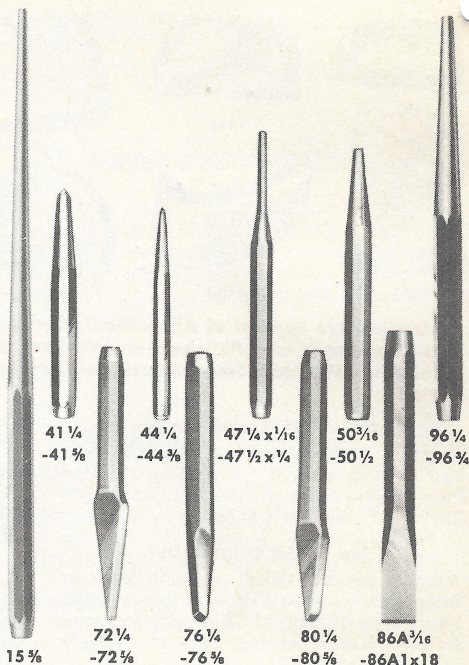
NO.	CUT	STOCK	LGTH.	WT., LBS.
303 $\frac{1}{4}$ x12	7 $\frac{1}{8}$ "	3 $\frac{1}{4}$ " Oct.	12"	1.50

CAPE CHISELS

721 $\frac{1}{4}$	5 $\frac{32}{64}$ "	1 $\frac{1}{4}$ " Oct.	41 $\frac{1}{2}$ "	.06
725 $\frac{1}{16}$	3 $\frac{1}{16}$ "	5 $\frac{1}{16}$ " Oct.	5"	.10
723 $\frac{3}{8}$	1 $\frac{1}{2}$ "	3 $\frac{3}{8}$ " Oct.	51 $\frac{1}{2}$ "	.15
721 $\frac{1}{2}$	5 $\frac{16}{64}$ "	1 $\frac{1}{2}$ " Oct.	6"	.27
725 $\frac{5}{8}$	3 $\frac{3}{8}$ "	5 $\frac{5}{8}$ " Oct.	61 $\frac{1}{2}$ "	.44

DIAMOND POINT CHISELS

761 $\frac{1}{4}$	5 $\frac{32}{64}$ "	1 $\frac{1}{4}$ " Oct.	41 $\frac{1}{2}$ "	.06
765 $\frac{1}{16}$	3 $\frac{1}{16}$ "	5 $\frac{1}{16}$ " Oct.	5"	.10
763 $\frac{3}{8}$	1 $\frac{1}{2}$ "	3 $\frac{3}{8}$ " Oct.	51 $\frac{1}{2}$ "	.16
761 $\frac{1}{2}$	5 $\frac{16}{64}$ "	1 $\frac{1}{2}$ " Oct.	6"	.32
765 $\frac{5}{8}$	3 $\frac{3}{8}$ "	5 $\frac{5}{8}$ " Oct.	61 $\frac{1}{2}$ "	.47



ROUND NOSE CHISELS

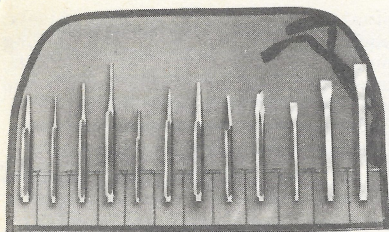
NO.	CUT	STOCK	LGTH.	WT., LBS.
801 $\frac{1}{4}$	5 $\frac{32}{64}$ "	1 $\frac{1}{4}$ " Oct.	41 $\frac{1}{2}$ "	.06
805 $\frac{1}{16}$	3 $\frac{1}{16}$ "	5 $\frac{1}{16}$ " Oct.	5"	.10
803 $\frac{3}{8}$	1 $\frac{1}{2}$ "	3 $\frac{3}{8}$ " Oct.	51 $\frac{1}{2}$ "	.14
805 $\frac{5}{8}$	3 $\frac{3}{8}$ "	5 $\frac{5}{8}$ " Oct.	61 $\frac{1}{2}$ "	.49

COLD CHISELS

86A 3 $\frac{1}{16}$	1 $\frac{1}{4}$ "	3 $\frac{1}{16}$ " Oct.	41 $\frac{1}{4}$ "	.03
86A 1 $\frac{1}{4}$	3 $\frac{1}{16}$ "	1 $\frac{1}{4}$ " Oct.	41 $\frac{1}{2}$ "	.06
86A 5 $\frac{1}{16}$	3 $\frac{3}{8}$ "	5 $\frac{1}{16}$ " Oct.	5"	.11
86A 3 $\frac{3}{8}$	7 $\frac{16}{64}$ "	3 $\frac{3}{8}$ " Oct.	51 $\frac{1}{2}$ "	.20
86A 7 $\frac{1}{16}$	3 $\frac{1}{2}$ "	7 $\frac{1}{16}$ " Oct.	6"	.26
86A 1 $\frac{1}{2}$	5 $\frac{5}{8}$ "	1 $\frac{1}{2}$ " Oct.	61 $\frac{1}{2}$ "	.32
86A 5 $\frac{7}{8}$	3 $\frac{3}{4}$ "	5 $\frac{7}{8}$ " Oct.	7"	.56
86A 3 $\frac{3}{4}$ x71 $\frac{1}{2}$	7 $\frac{1}{8}$ "	3 $\frac{3}{4}$ " Oct.	71 $\frac{1}{2}$ "	.88
86A 3 $\frac{1}{4}$ x12	1"	3 $\frac{1}{4}$ " Oct.	12"	1.42
86A 7 $\frac{1}{8}$ x8	1"	7 $\frac{1}{8}$ " Oct.	8"	1.25
86A 7 $\frac{1}{8}$ x12	1"	7 $\frac{1}{8}$ " Oct.	12"	1.95
86A 1x8	13 $\frac{1}{16}$ "	1" Oct.	8"	1.57
86A 1x18	13 $\frac{1}{16}$ "	1" Oct.	18"	3.5

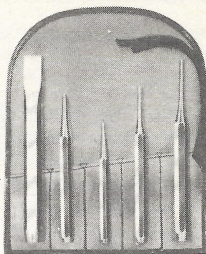


PUNCH AND CHISEL SETS



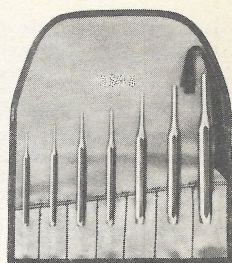
No. 2 Set

A fine selection, providing the twelve punches and chisels used most frequently in practically all types of work. Includes Center Punch $4\frac{1}{8}$; Rivet or Pin Punches $47\frac{1}{4} \times \frac{3}{32}$, $47\frac{5}{16} \times \frac{1}{8}$ and $47\frac{3}{8} \times \frac{3}{16}$; Starting Punches $50\frac{5}{16}$, $50\frac{5}{16}$ and $50\frac{5}{8}$; Cape Chisel $72\frac{5}{16}$; Diamond Point Chisel $76\frac{3}{16}$, and Cold Chisels $86A\frac{1}{4}$, $86A\frac{3}{8}$ and $86A\frac{7}{16}$ in a red Velon Kit No. 2402. Weight, 1.71 Lbs.



No. 3 Set

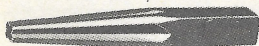
A useful set, including Center Punch $4\frac{1}{8}$; Rivet or Pin Punches $47\frac{5}{16} \times \frac{1}{8}$ and $47\frac{3}{8} \times \frac{3}{16}$; Starting Punch $50\frac{5}{16}$, and Cold Chisel $86A\frac{1}{2}$ in Velon Kit No. 2411. Weight, .91 Lb.



No. 47A Set

A useful, complete set of seven rivet or pin punches. Includes $47\frac{1}{4} \times \frac{1}{16}$, $47\frac{1}{4} \times \frac{3}{32}$, $47\frac{5}{16} \times \frac{1}{8}$, $47\frac{5}{16} \times \frac{5}{32}$, $47\frac{3}{8} \times \frac{3}{16}$, $47\frac{7}{16} \times \frac{7}{32}$ and $47\frac{1}{2} \times \frac{1}{4}$ in red Velon Kit No. 2403. Weight, 1.18 Lbs.

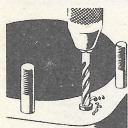
SCREW AND PIPE EXTRACTORS



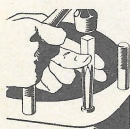
9521-9529

How to Use

These extractors, accurately broached from special alloy steels, are considered the most effective type obtainable because they are so easy to use. The sharp edges "bite" positively into any broken screws, studs, bolts, fittings, etc. You will save precious time and your good disposition on many occasions if you get all nine sizes.



First drill hole.



Then drive in extractor and turn out screw.

NO.	SIZE OF SMALL END	SIZE OF SHANK	OVER-ALL LENGTH	USS SCREW SIZE	DRILL SIZE	MIN. DEPTH OF HOLE	PIPE SIZE	WT., LBS.
9521	$\frac{1}{8}$ "	$\frac{3}{16}$ "	$2\frac{3}{8}$ "	$\frac{1}{4}$, $\frac{5}{16}$	$\frac{1}{8}$ "	$\frac{3}{8}$ "	----	.02
9522	$\frac{11}{64}$ "	$\frac{3}{16}$ "	$2\frac{5}{8}$ "	$\frac{3}{8}$	$\frac{3}{16}$ "	$\frac{1}{2}$ "	----	.02
†9523	$\frac{7}{32}$ "	$\frac{1}{4}$ "	$2\frac{7}{8}$ "	$\frac{7}{16}$	$\frac{15}{64}$ "	$\frac{1}{2}$ "	$\frac{1}{8}$ "	.04
9524	$\frac{19}{64}$ "	$\frac{5}{16}$ "	3 "	$\frac{1}{2}$	$\frac{5}{16}$ "	$\frac{1}{2}$ "	$\frac{1}{4}$ "	.06
9525	$\frac{11}{32}$ "	$\frac{3}{8}$ "	$3\frac{1}{4}$ "	$\frac{9}{16}$, $\frac{5}{8}$	$\frac{15}{32}$ "	$\frac{9}{16}$ "	$\frac{3}{8}$ "	.10
9526	$\frac{1}{2}$ "	$\frac{1}{2}$ "	$4\frac{1}{2}$ "	$\frac{3}{4}$	$\frac{9}{16}$ "	$1\frac{1}{16}$ "	$\frac{1}{2}$ "	.27
9527	$\frac{19}{32}$ "	$\frac{5}{8}$ "	$4\frac{7}{8}$ "	$\frac{7}{8}$	$\frac{9}{16}$ "	$1\frac{1}{16}$ "	$\frac{1}{2}$ "	.44
9528	$2\frac{3}{32}$ "	$\frac{3}{4}$ "	$5\frac{3}{8}$ "	1 , $1\frac{1}{8}$, $1\frac{1}{4}$	$\frac{3}{4}$ "	$1\frac{7}{16}$ "	$\frac{3}{4}$ "	.64
9529	$3\frac{1}{32}$ "	1 "	$5\frac{1}{2}$ "	$1\frac{3}{8}$, $1\frac{1}{2}$	1 "	$\frac{3}{4}$ "	1 "	1.20

†For broken Alemitte fittings.

No. 9500A Screw Extractor Set

Five popular-size extractors—Nos. 9521, 9522, 9523, 9524 and 9525—in cardboard box. Weight, .28 Lb.

PLUMBING TOOLS

In addition to these specialized tools, you will find a great many others in this catalog that are needed for plumbing, heating, ventilating and air conditioning work. Among them are pipe wrenches; flare nut and adjustable wrenches; box, open end and com-

bination wrenches; punches; chisels; pliers; screwdrivers; gear and bearing pullers; hammers; pry bars; tool chests, boxes and kits; and socket wrench sets in $\frac{1}{4}$ ", $\frac{3}{8}$ ", $\frac{1}{2}$ " and larger drives.

FLOOR OR WOOD CHISELS

NO.	STOCK SIZE	WIDTH OF CUT	BLADE LENGTH	OVERALL LENGTH	WT., LBS.
57 $\frac{1}{16}$	$\frac{7}{16}$ "	$\frac{5}{8}$ "	4 $\frac{1}{2}$ "	10"	.38
57 $\frac{1}{2}$	$\frac{1}{2}$ "	$\frac{3}{4}$ "	4 $\frac{1}{4}$ "	10"	.54
57 $\frac{3}{8}$	$\frac{3}{8}$ "	1"	3 $\frac{3}{4}$ "	10"	.70
53 $\frac{3}{4}$	$\frac{3}{4}$ "	1 $\frac{3}{16}$ "	3 $\frac{1}{2}$ "	10"	1.00

STAR DRILLS

131 $\frac{1}{4}$	$\frac{1}{4}$ "	$\frac{1}{4}$ "	----	12"	.17
135 $\frac{1}{16}$	$\frac{1}{4}$ "	$\frac{5}{16}$ "	----	12"	.17
133 $\frac{3}{8}$	$\frac{5}{16}$ "	$\frac{3}{8}$ "	----	12"	.26
131 $\frac{1}{2}$	$\frac{3}{8}$ "	$\frac{1}{2}$ "	----	12"	.39
133 $\frac{1}{8}$	$\frac{1}{2}$ "	$\frac{5}{8}$ "	----	12"	.53
133 $\frac{3}{4}$	$\frac{1}{2}$ "	$\frac{3}{4}$ "	----	12"	.85
137 $\frac{3}{8}$	$\frac{5}{8}$ "	$\frac{7}{8}$ "	----	12"	1.06
13-1	$\frac{3}{4}$ "	1"	----	12"	1.56

SCRATCH AWLS

18	$\frac{5}{16}$ "	----	----	7"	.17
19	$\frac{3}{16}$ "	----	----	6 $\frac{3}{4}$ "	.05

SOIL PIPE CHISELS

371 $\frac{1}{2}$	$\frac{1}{2}$ "	$\frac{5}{8}$ "	17 $\frac{3}{8}$ "	51 $\frac{1}{2}$ "	.30
375 $\frac{3}{8}$	$\frac{5}{8}$ "	$\frac{3}{4}$ "	25 $\frac{3}{8}$ "	6"	.48
373 $\frac{3}{4}$	$\frac{3}{4}$ "	$\frac{7}{8}$ "	27 $\frac{3}{8}$ "	61 $\frac{1}{2}$ "	.74

CONCRETE GADS

843 $\frac{3}{4}$	$\frac{3}{4}$ "	----	21 $\frac{1}{8}$ "	12"	1.42
847 $\frac{3}{8}$	$\frac{7}{8}$ "	----	21 $\frac{1}{2}$ "	12"	1.84
84-1	1"	----	23 $\frac{3}{4}$ "	12"	2.4

LEAD-PICKING TOOL

112	$\frac{1}{2}$ "	$\frac{3}{16}$ "	23 $\frac{3}{8}$ "	9"	.44
-----	-----------------	------------------	--------------------	----	-----

BENDING IRONS

1351 $\frac{1}{2}$	$\frac{1}{2}$ "	----	----	10 $\frac{5}{8}$ "	.50
1355 $\frac{3}{8}$	$\frac{5}{8}$ "	----	----	10 $\frac{3}{8}$ "	.75

No. 136 Tubing Expander

A very handy tool for plumbers and all others who work with tubing. The three steps expand the internal diameters of tubing to 1 $\frac{1}{4}$ ", 1 $\frac{3}{8}$ " and 1 $\frac{1}{2}$ ". Length, 3 $\frac{1}{8}$ ". Weight, .86 Lb.

No. 2370 Packing Hook

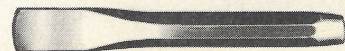
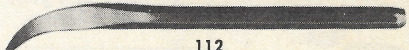
Hook on each end at 90° angle. Stock size, $\frac{5}{16}$ ". Length, 8 $\frac{1}{4}$ ". Weight, .15 Lb.

57 $\frac{1}{16}$ -5 $\frac{3}{4}$ 13 $\frac{1}{4}$ -13-1

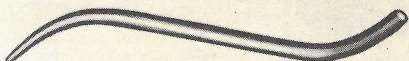
18



19

37 $\frac{1}{2}$ -37 $\frac{3}{4}$ 84 $\frac{3}{4}$ -84-1

112

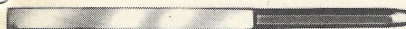
135 $\frac{1}{2}$ -135 $\frac{3}{8}$ 

136



2370

PLUMBING TOOLS



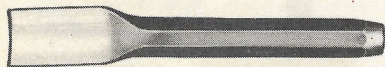
6 1/2 x 11 1/2 - 6 5/8 x 18



14 1/2 x 11 1/2 - 14 3/4 x 14



21 1/2



33 1/2 - 33 3/4



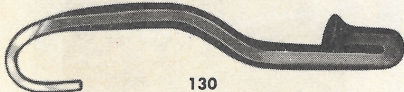
033 1/2 - 033 3/4



109



110



130



131 5/8 - 131 3/4



132L-132R

Spring yarning irons use spring steel in the blade and are slightly offset for clearance. Long calkers, for calking lead in hub of soil pipe, are ground both inside and out, and their concave blades fit 4" pipe. Water main calkers are ground square, have an offset handle for knuckle clearance, and do a fast job of calking joints in cast iron mains. Left and right calkers are for use near walls or in corners.

SPRING YARNING IRONS

NO.	STOCK SIZE	BLADE THICKNESS	BLADE WIDTH	BLADE LENGTH	OVERALL LENGTH	WT., LBS.
61 1/2 x 11 1/2	1 1/2"	1 1/8" - 1 3/8"	5 5/8"	6 1/2"	11 1/2"	.43
65 5/8 x 12	5 5/8"	3 3/32" - 3 3/16"	3 3/4"	7"	12"	.66
65 5/8 x 18	5 5/8"	3 3/32" - 3 1/16"	3 3/4"	13"	18"	.75

OFFSET YARNING IRONS

141 1/2 x 11 1/2	1 1/2"	1 1/8" - 3 1/16"	5 5/8"	6 1/4"	11 1/2"	.47
145 5/8 x 12	5 5/8"	3 3/32" - 7 1/4"	11 1/16"	7 1/2"	12"	.78
145 5/8 x 18	5 5/8"	3 3/32" - 7 1/4"	11 1/16"	12 3/4"	18"	1.15
143 3/4 x 14	3 3/4"	3 3/32" - 3 1/16"	3 3/4"	8 1/2"	14"	1.07

CURVED PONY CALKERS (Inside & Outside)

21 1/2 In	1 1/2"	1 5/8"	3 3/4"	1 1/4"	3"	.14
21 1/2 Out	1 1/2"	1 5/8"	3 3/4"	1 1/4"	3"	.14

LONG CALKERS (Inside & Outside)

33 1/2 In	1 1/2"	1 5/8"	3 3/4"	1 1/2"	5 1/2"	.29
33 1/2 Out	1 1/2"	1 5/8"	3 3/4"	1 1/2"	5 1/2"	.29
33 5/8 In	5 5/8"	5 5/8"	7 5/8"	1 3/4"	5 3/4"	.45
33 5/8 Out	5 5/8"	5 5/8"	7 5/8"	1 3/4"	5 3/4"	.45

OFFSET CALKERS (Inside & Outside)

033 1/2 In	1 1/2"	1 5/8"	3 3/4"	1 1/2"	5 5/8"	.30
033 1/2 Out	1 1/2"	1 5/8"	3 3/4"	1 1/2"	5 5/8"	.30
033 5/8 In	5 5/8"	5 5/8"	7 5/8"	1 5/8"	6 1/4"	.49
033 5/8 Out	5 5/8"	5 5/8"	7 5/8"	1 5/8"	6 1/4"	.49

WATER MAIN CALKER

109	3 3/4"	3 1/16"	1"	2 1/16"	8"	.88
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BROAD CURVED NOSE CALKING IRON.

110	5 5/8"	1 5/8"	1 1/2"	2"	8 1/2"	.71
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CEILING CALKER

130	5 5/8"	5 5/32"	1 1/16"	1 5/8"	10"	1.00
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LONG GASKET CALKERS

131 5/8	5 5/8"	5 5/32"	7 5/8"	4"	9 1/2"	.64
131 3/4	3 3/4"	3 1/16"	1"	4"	9 1/2"	.99

LEFT AND RIGHT CALKERS

132L	5 5/8"	5 5/32"	7 5/8"	1 5/8"	8 7/8"	.75
132R	5 5/8"	5 5/32"	7 5/8"	1 5/8"	8 7/8"	.75

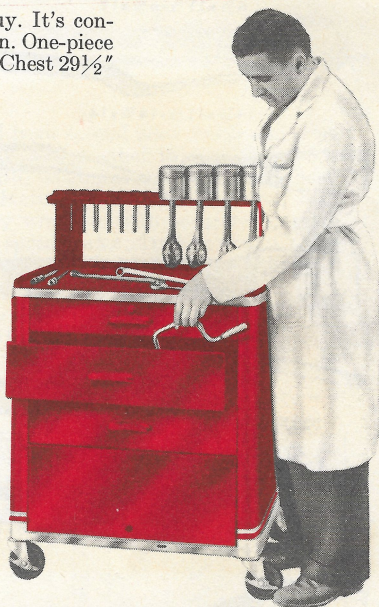
TOOLMOBILE MOBILE TOOL CABINET

"The Modern Mobile Work Bench"

Here's the finest tool cabinet your money can buy. It's convenient and impressive—tops for efficient operation. One-piece construction with all parts joined by spot welding. Chest $29\frac{1}{2}$ " high without casters or piston rack, 28" wide, $17\frac{3}{4}$ " from front to back. Lustrous Chinese red enamel finish. Weight complete without tools, 119 pounds, boxed for shipment. Strong as a steel safe. A Toolmobile cabinet saves hours of time and effort. The most popular roller box on the market.

SPECIFICATIONS

- (1) Bolted-on rack has 16 holes and 8 slots for pistons, valves and tools.
- (2) Large working surface, $17\frac{3}{4}$ " x 28", of heavy-gauge steel.
- (3) Barrel lock with locking bar secures everything with one key. Locking bar drops in slot at left out of way when chest is not in use.
- (4) Side rail on each side for socket rack.
- (5) Drawer $3\frac{3}{4}$ " deep, complete with adjustable divider.
- (6) Drawer $5\frac{7}{8}$ " deep, with adjustable divider.
- (7) Drawer $6\frac{5}{8}$ " deep. Solid bottom.
- (8) Large compartment 10" high. Front panel slides under drawer above.
- (9) Ventilators on both sides.
- (10) Rounded streamlined corners.
- (11) Large composition, ball bearing casters. Front casters with foot-operated brakes.
- (12) 6" x 6" steel reinforcement plate under top for attaching light vise.
- (13) All corners reinforced on inside for added strength and rigidity.
- (14) All drawers run on bearing rollers.



No. 9969-1 Toolmobile with Piston Rack



No. 9969-1 Toolmobile Open

9969-1 Toolmobile Cabinet Complete with Piston Rack. Weight, 119 Lbs.

9969-4 Toolmobile Cabinet without Piston Rack. Weight, 113 Lbs.

9969-7 Piston Rack Only for Toolmobile Cabinet. Weight, 6 Lbs.

Strips for Dividing Toolmobile Drawers

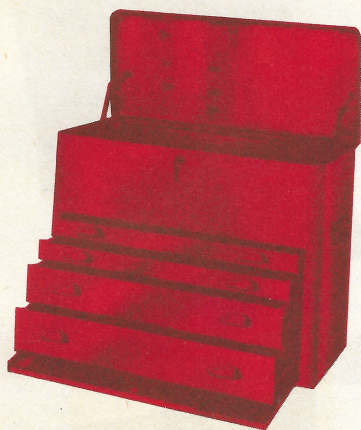
9969-8A Divider Strip, 5" long.

9969-8B Divider Strip, $17\frac{3}{8}$ " long.

9969-8C Divider Strip, $22\frac{1}{2}$ " long.



MODERN TOOL CHESTS FOR ALL PURPOSES



Master Tool Chest No. 9998

No. 9998 Master Tool Chest

Folding handles. Spring clips inside lid. Finished in brilliant Chinese red. Will hold shape with full load.

Weight, 77 Lbs. Outside dimensions: 12" wide, 26½" long, 20½" high. Top compartment 7½" deep. Top drawer 1½" deep, with compartment for small sockets. Second drawer 1½" deep, with two adjustable partitions. Third drawer 3¼" deep, with two adjustable partitions. Bottom drawer 3½" deep, with two movable partitions.

Front slides under bottom drawer. With lid closed, front covers drawers and is locked with spring-controlled bolts. One lock secures everything.



Master Tool Chest No. 9990

No. 9990 Master Tool Chest

The tool chest you have longed for. Streamlined, deluxe. As modern as young ideas. Smooth contours, rounded edges. Finished in brilliant Chinese red.

Overall dimensions: 11¼" wide, 12¾" deep, 24½" long. Weight, 37 Lbs. Cantilever tray in top swings up with lid and is partitioned for small tools. Drawers run with finger-tip ease.

One padlock secures everything.

TOOL CHESTS AND SOCKET RACKS

No. 9989 Master Tool Chest

Made of sheet steel, welded and riveted; dark red baked enamel finish. Hinged tray swings up with lid. Removable tray gives easy access to large interior.

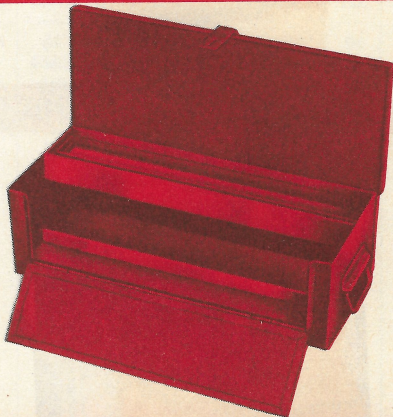
Overall dimensions: 9" deep, 11½" wide, 20½" long. Hinged tray 1¼" deep, 5½" wide, 19" long. Front tray 1½" deep, 5½" wide, 19" long. Compartment 6" deep, 11" wide, 20" long. Fixed tray in top space 2½" deep, 4¾" wide, 20" long. Each tray and bottom compartment have separate section for sockets or small tools. Heavy hasp fits over staple on hinged front to lock chest securely. Strong folding handles. Weight empty, 20 Lbs.



9989

No. 9980 Utility Tool Chest

22¼" long, 9" wide, 6½" high, with drop front and drop handles at each end. Dark red wrinkle finish. Heavy-gauge steel. Weight empty, 11 Lbs.



9980

Socket Racks

Made with clip on back, which slips over edge of box or partition. Can be carried on side of tote tray or can be put in a convenient place on wall or bench. Sockets fit firmly on rack. Made of heavy sheet steel, dark red baked enamel finish.

No. 5297—Cub Socket Rack, 18¼" long; has 17 clips for sockets with ⅜" square drive. Weight, .50 Lb.

No. 5497—Standard Socket Rack, 18½" long; has 17 clips for sockets with ½" square drive. Weight, .64 Lb.



5297 & 5497

STEEL TOOL BOXES FOR SOCKET SETS

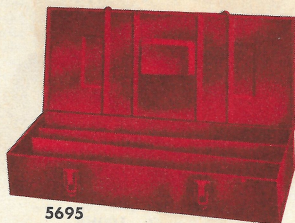


5894

All socket set boxes are made of sturdy heavy-gauge steel and have red baked enamel finish.

No. 5894 Extra Heavy-Duty Tool Box

For 1" square drive extra heavy-duty and $\frac{3}{4}$ " drive heavy-duty sockets, handles and attachments. Made extra heavy throughout — welded, riveted and strongly reinforced. Dimensions, 30"x8 $\frac{1}{4}$ "x5". Weight, 17 Lbs.



5695

No. 5695 Heavy-Duty Tool Box

For $\frac{3}{4}$ " drive heavy-duty sockets, handles and attachments. Lid is strongly reinforced with steel cross-ribs. Handle, on top of lid, folds flush into recess. Has three convenient compartments. Locks with two spring catches. Dimensions, 22 $\frac{1}{2}$ "x8"x3 $\frac{3}{4}$ ". Weight, 5.5 Lbs.



5495

No. 5495 Standard Tool Box

For $\frac{1}{2}$ " drive standard sockets, handles and attachments. Has two socket compartments full length of box, and a compartment at front for cotter keys, small tools, extra sockets, etc. Hinge hasp holds cover down. Handle folds out of way when not in use. Dimensions, 19 $\frac{1}{2}$ "x8 $\frac{1}{4}$ "x1 $\frac{3}{4}$ ". Weight, 4.1 Lbs.



5494

No. 5494 Junior Standard Tool Box

A smaller box than No. 5495, but has room for a large number of $\frac{1}{2}$ " drive standard sockets and a few handles and attachments. Dimensions, 17"x3"x2". Weight, 1.78 Lbs.



5295

No. 5295 Cub Tool Box

For $\frac{3}{8}$ " drive cub sockets, handles and attachments. Handy for trouble-shooting, as it is a convenient size to carry. Hinge hasp holds cover down. Dimensions, 18 $\frac{1}{2}$ "x5 $\frac{1}{4}$ "x1 $\frac{1}{2}$ ". Weight, 2.4 Lbs.



5294

No. 5294 Junior Cub Tool Box

Smaller than No. 5295. Holds large number of $\frac{3}{8}$ " drive cub sockets and a few attachments. Dimensions, 10 $\frac{1}{4}$ "x2 $\frac{1}{4}$ "x1 $\frac{1}{4}$ ". Weight, .72 Lb.



4795

No. 4795 Midget Tool Box

For $\frac{1}{4}$ " drive midget sockets, handles and attachments. Keeps smaller tools in orderly array and separated from others. Dimensions, 6 $\frac{3}{4}$ "x2 $\frac{1}{4}$ "x1". Weight, .48 Lb.

HIP-ROOF BOXES AND FLEXIBLE KITS

Nos. 9970 and 9971 Hip-Roof Tool Boxes

Ideal for any tool user, having room for an amazing number of tools. Made of heavy-gauge steel, with strong full-length hinges. Handy tote tray lifts out. Finish is red. Made in two sizes.

NO.	DIMENSIONS	WT., LBS.
9970	20"x6"x5 $\frac{1}{4}$ "	6.5
9971	19"x7"x8 $\frac{3}{4}$ "	8.2



9971

No. 100HR Hip-Roof Tool Box

Handy for taking tools to job. Tote tray, which fits inside top, has socket compartment 13 $\frac{1}{2}$ " long and full-length compartment 2" wide. Box is made of heavy-gauge steel, and is 7 $\frac{3}{8}$ "x8 $\frac{1}{2}$ "x21". Two handles hold box shut while carrying. Finish is red. Weight, 13 Lbs.



100HR

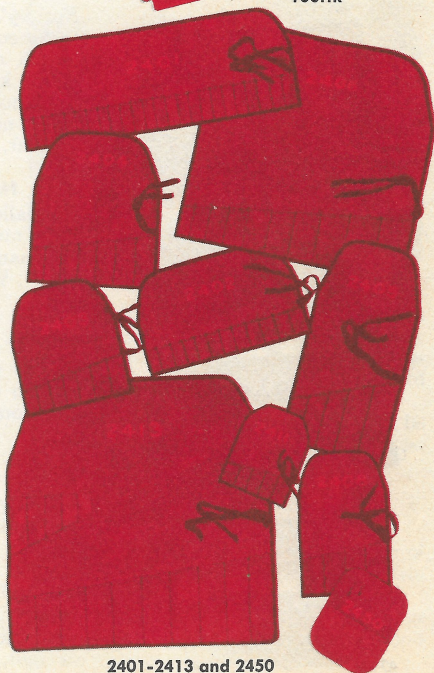
Flexible Kits for Tool Sets

These kits are the finest obtainable for storing and carrying tools. They are made of a revolutionary rubber and plastic material which offers many advantages. It has amazing durability and is noted for long wear. It is flexible, won't crack or peel, is scratch and scuff proof, resists oil and grease, and is easy to clean with soap and water. The kits are red with gold marking, and they retain their new, handsome appearance. They have strongly stitched seams and heavy tie strings.

NO.	WIDTH	DEPTH	POCKETS	WT., LBS.
2401	27"	10"	24	.38
2402	16 $\frac{1}{4}$ "	9 $\frac{3}{4}$ "	12	.22
2403	10 $\frac{1}{2}$ "	12 $\frac{1}{4}$ "	7	.16
2404	12 $\frac{1}{2}$ "	15"	7	.26
2405	9 $\frac{1}{8}$ "	20 $\frac{3}{4}$ "	5	.26
2406	22 $\frac{1}{2}$ "	22 $\frac{1}{4}$ "	10	.62
2408	8"	13 $\frac{1}{4}$ "	4	.18
2411	7"	9 $\frac{1}{4}$ "	5	.10
2413	25 $\frac{1}{4}$ "	27 $\frac{1}{4}$ "	15	.88



No. 2450 Belt-Type Leather Kit

Handy for carrying tools on the job. Has four slots for holding with belt. Made of red chrome-tanned top-quality leather. Has three pockets, and is 7" wide by 9" deep. Weight, .16 Lb.



2401-2413 and 2450

Chart of Standard Bolt, Nut and Cap Screw Sizes, Corresponding to Nominal Sizes Marked on Proto Wrenches and Sockets

BOLT SIZE	NOMINAL OPENING SIZE OF WRENCH OR SOCKET										BOLT SIZE
	IN INCHES THAT FIT THESE										
	<div><div></div><div>HEXAGON OR SQUARE</div><div></div></div> <div>BOLTS, NUTS AND SCREWS</div>										
	AMERICAN STANDARD SERIES					U.S.S. BOLT- HEADS & NUTS	S.A.E. LT. BOLT- HEADS & NUTS	CAP SCREW HEADS	MACHINE SCREW NUTS	† STOVE BOLT NUTS	
HEAVY		REGULAR		LIGHT							
THREAD DIAMETER	BOLT- HEADS	NUTS	BOLT- HEADS	NUTS	NUTS						THREAD DIAMETER
#0 & 1	---	---	---	5/32	---	---	---	---	5/32	5/32	#0 & 1
#2 & 3	---	---	---	3/16	---	---	---	---	3/16	3/16	#2 & 3
#4	---	---	---	1/4	---	---	---	---	1/4	1/4	#4
#5 & 6	---	---	---	5/16	---	---	---	---	5/16	5/16	#5 & 6
#8	---	---	---	11/32	---	---	---	---	11/32	11/32	#8
#10	---	---	---	3/8	---	---	---	---	3/8	3/8	#10
#12	---	---	---	7/16	---	---	---	---	7/16	7/16	#12
1/8"	---	---	---	---	---	5/16	---	---	---	---	1/8"
1/4"	---	1/2	3/8	7/16	7/16	1/2	7/16	7/16	7/16	7/16	1/4"
5/16"	---	19/32	1/2	9/16	1/2	19/32	1/2	1/2	9/16	9/16	5/16"
3/8"	---	11/16	9/16	5/8	9/16	11/16	9/16	9/16	5/8	5/8	3/8"
7/16"	---	25/32	5/8	3/4	5/8	25/32	5/8	5/8	3/4	3/4	7/16"
1/2"	7/8	7/8	3/4	13/16	3/4	7/8	3/4	3/4	13/16	13/16	1/2"
9/16"	15/16	15/16	7/8	7/8	7/8	31/32	7/8	13/16	7/8	7/8	9/16"
5/8"	11/16	11/16	15/16	1	15/16	11/16	15/16	7/8	1	1	5/8"
3/4"	11/4	11/4	11/8	11/8	11/16	11/4	11/16	1	11/8	11/8	3/4"
7/8"	17/16	17/16	15/16	15/16	11/4	17/16	11/4	11/8	15/16	15/16	7/8"
1"	15/8	15/8	11/2	11/2	17/16	15/8	17/16	15/16	11/2	11/2	1"
11/8"	113/16	113/16	111/16	111/16	15/8	113/16	15/8	11/2	111/16	111/16	11/8"
11/4"	2	2	17/8	17/8	113/16	2	113/16	111/16	17/8	17/8	11/4"
13/8"	23/16	23/16	21/16	21/16	2	23/16	2	---	21/16	21/16	13/8"
11/2"	23/8	23/8	21/4	21/4	23/16	23/8	23/16	---	21/4	21/4	11/2"
15/8"	29/16	29/16	27/16	27/16	---	29/16	---	---	27/16	27/16	15/8"
13/4"	23/4	23/4	25/8	25/8	---	23/4	---	---	25/8	25/8	13/4"
17/8"	215/16	215/16	213/16	213/16	---	215/16	---	---	213/16	213/16	17/8"
2"	31/8	31/8	3	3	---	31/8	---	---	3	3	2"
21/4"	31/2	31/2	33/8	33/8	---	31/2	---	---	33/8	33/8	21/4"
21/2"	37/8	37/8	33/4	33/4	---	37/8	---	---	33/4	33/4	21/2"
23/4"	41/4	41/4	41/8	41/8	---	41/4	---	---	41/8	41/8	23/4"
3"	45/8	45/8	41/2	41/2	---	45/8	---	---	41/2	41/2	3"

6- and 12-Point Sockets Are Used on Hexagon Bolts and Nuts.
 4- and 8-Point Sockets Are Used on Square Bolts and Nuts.

† Square Only



PREFERRED BY MEN WHO
EARN THEIR LIVING WITH TOOLS

CATALOG 4922-M

549-WL-175

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Los Angeles 54, Calif.